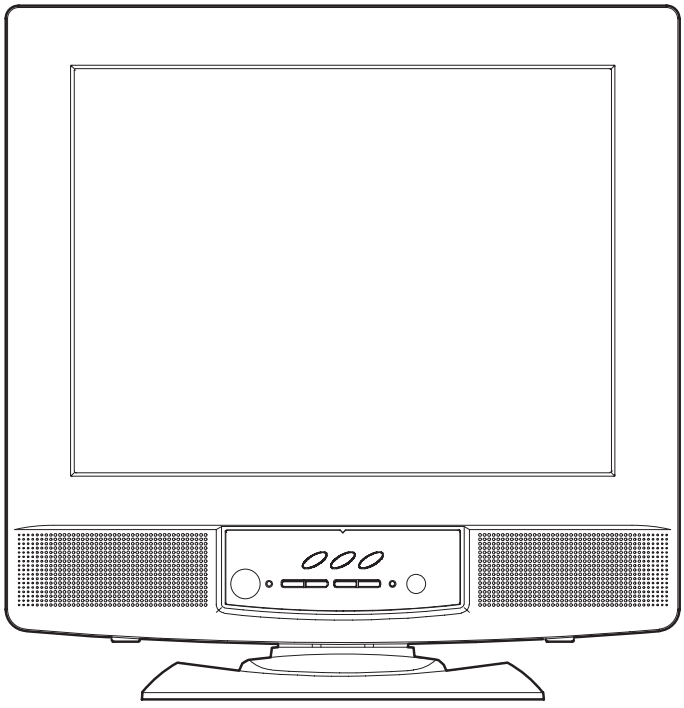
SYLVANIA

SERVICE MANUAL

15″ LCD TV/DVD

6615LDF



IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Funai Equipment. The service procedures recommended by Funai and described in this service manual are effective methods of performing service operations. Some of these service special tools should be used when and as recommended.

It is important to note that this service manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Funai could not possibly know, evaluate and advice the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Funai has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Funai must first use all precautions thoroughly so that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

The LCD panel is manufactured to provide many years of useful life. Occasionally a few non active pixels may appear as a tiny spec of color. This is not to be considered a defect in the LCD screen.

Manufactured under license from Dolby Laboratories.
“Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

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SPECIFICATIONS

< LCD TV Section >

< TUNER >

ANT. Input ---------- 75 ohm Unbal., F type
Reference Level---------- 20 Vp-p (LCD Green Cathode)
Test Input Signal ---------- 400 Hz 30% modulation

Description	Condition	Unit	Nominal	Limit
1. Intermediate Freq.	Picture Sound	MHz MHz	45.75 41.25	--- ---
2. Color Killer Sens.	CH-4	dBμV	20	25
3. AFT Pull In Range (10 mV input)	---	MHz	±2.1	±0.7

< LCD PANEL >

Description	Condition	Unit	Nominal	Limit
1. Number of Pixels	Horizontal Vertical	pixels pixels	640 × 3 480	--- ---
2. Brightness		cd/m^2	450	---
3. Response Time	---	msec	16	---
4. Support Color	---	-	16 mil. (8 bit)	---
5. Viewing Angle	Horizontal Vertical	° °	-85 to 85 -85 to 70	--- ---

< VIDEO >

Description	Condition	Unit	Nominal	Limit
1. Over Scan	Horizontal Vertical	% %	5 5	--- ---
2. Color Temperature	--- x y	°K	9200 0.286 0.294	--- ±0.3 ±0.3
3. Resolution	Horizontal Vertical	line line	400 350	--- ---

< AUDIO >

All items are measured across 8 Ω load at speaker output terminal with L.P.F.

Description	Condition	Unit	Nominal	Limit
1. Audio Output Power	10% THD: Lch/Rch	W	1.0/1.0	0.8/0.8
2. Audio Distortion	500mW: Lch/Rch	%	1.0/1.0	4.0/4.0
3. Audio Freq. Response	–3dB: Lch –3dB: Rch	Hz Hz	50 to 12 k 50 to 12 k	--- ---

Note: Nominal specifications represent the design specifications. All units should be able to approximate these. Some will exceed and some may drop slightly below these specifications. Limit specifications represent the absolute worst condition that still might be considered acceptable. In no case should a unit fail to meet limit specifications.

<DVD Section>

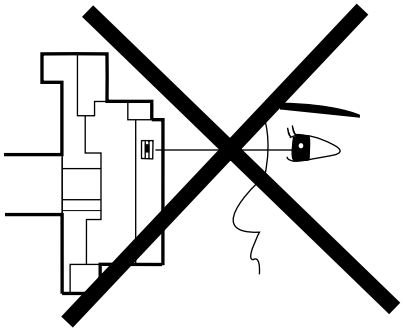
ITEM	CONDITIONS	UNIT	NOMINAL	LIMIT
1. Coaxial Digital Out	75 ohm load	mVpp	500	± 100

NOTES:

1. All Items are measured without pre-emphasis unless otherwise specified.
2. Power supply : AC120 V 60 Hz
3. Ambient temperature: +25 °C

LASER BEAM SAFETY PRECAUTIONS

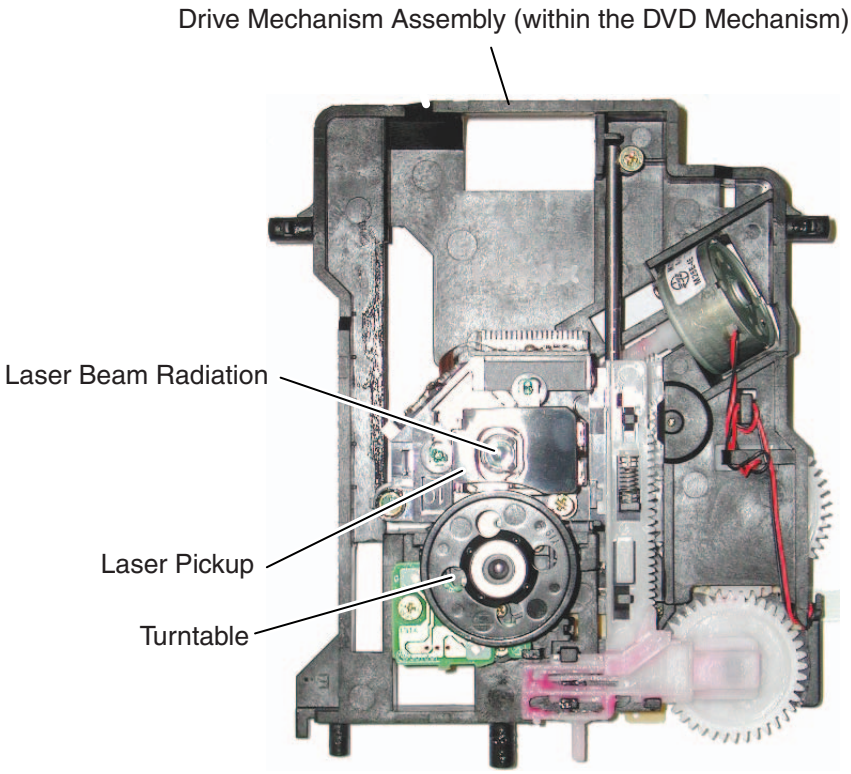
This DVD player uses a pickup that emits a laser beam.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30 cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

CAUTION: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.



CAUTION
LASER RADIATION
WHEN OPEN. DO NOT
STARE INTO BEAM.

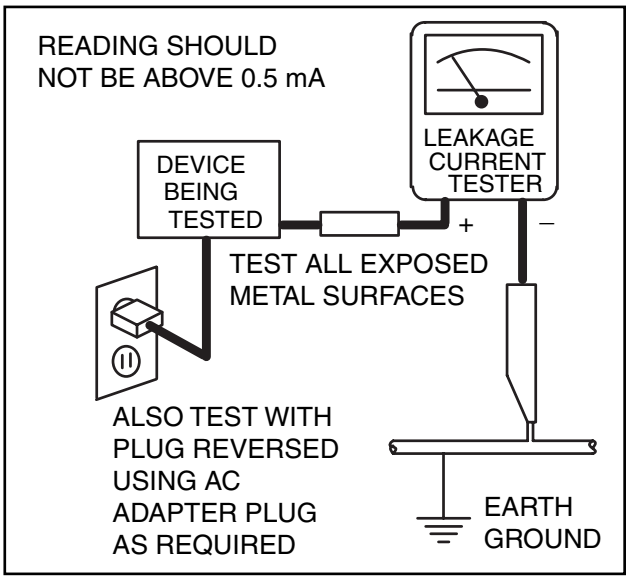
Location: Top of DVD mechanism.

IMPORTANT SAFETY PRECAUTIONS

Prior to shipment from the factory, our products are strictly inspected for recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Safety Precautions for LCD TV Circuit

1. **Before returning an instrument to the customer,** always make a safety check of the entire instrument, including, but not limited to, the following items:
   - **a.** Be sure that no built-in protective devices are defective and have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**
   - **b.** Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the Liquid Crystal Panel and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.
   - **c. Antenna Cold Check -** With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohm or greater than 5.2 megohm, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.
   - **d. Leakage Current Hot Check -** With the instrument completely reassembled, plug the AC line cord directly into a 120 V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milli-ampere. Reverse the instrument power cord plug in the outlet and repeat the test.



ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the Liquid Crystal Panel.

3. **Design Alteration Warning -** Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.
4. **Hot Chassis Warning -**
   a. Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and maybe safety-serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter, measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground.
   b. Some TV receiver chassis normally have 85V AC(RMS) between chassis and earth ground regardless of the AC plug polarity. This chassis can be safety-serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection.
   c. Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulation material that must not be defeated or altered.
5. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: a. near sharp edges, b. near thermally hot parts-be sure that leads and components do not touch thermally hot parts, c. the AC supply, d. high voltage, and, e. antenna wiring. Always inspect in all areas for pinched, out of place, or frayed wiring. Check AC power cord for damage.
6. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.
7. **Product Safety Notice -** Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc.. Parts that have special safety characteristics are identified by a ⚠ on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The product's safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are strictly inspected to confirm they comply with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Precautions during Servicing

A. Parts identified by the ⚠ symbol are critical for safety.
Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:
1) Wires covered with PVC tubing
2) Double insulated wires
3) High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:
1) Insulation Tape
2) PVC tubing
3) Spacers
4) Insulators for transistors.

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.)

G. Check that replaced wires do not contact sharp edged or pointed parts.

H. When a power cord has been replaced, check that 5~6 kg of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

K. Crimp type wire connector
The power transformer uses crimp type connectors which connect the power cord and the primary side of the transformer. When replacing the transformer, follow these steps carefully and precisely to prevent shock hazards.
Replacement procedure
1) Remove the old connector by cutting the wires at a point close to the connector.
Important: Do not re-use a connector (discard it).
2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.
3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.
4) Use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

L. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC supply outlet.

M. When installing parts or assembling the cabinet parts, be sure to use the proper screws and tighten certainly.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1: Ratings for selected area

AC Line Voltage	Region	Clearance Distance (d), (d')
110 to 130 V	U.S.A. or Canada	≥ 3.2 mm (0.126 inches)

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

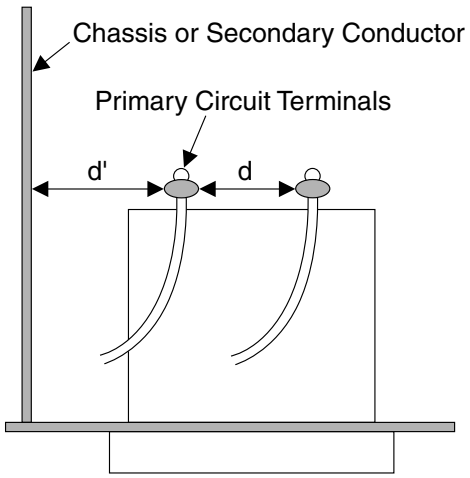


Fig. 1

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

Measuring Method: (Power ON)

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig. 2 and following table.

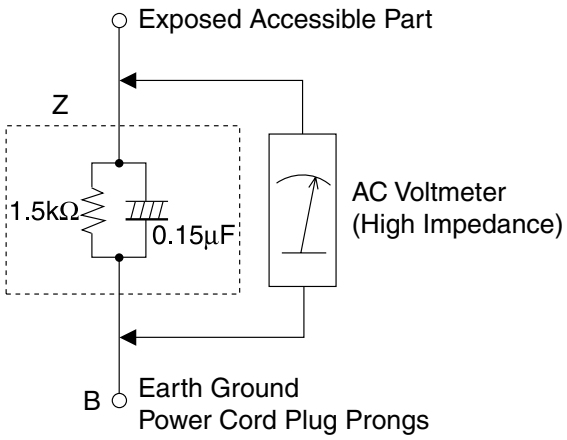


Fig. 2

Table 2: Leakage current ratings for selected areas

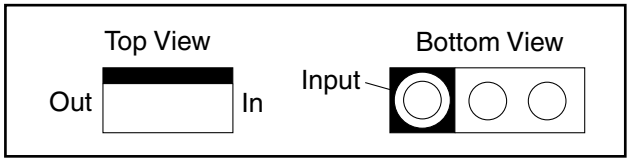
AC Line Voltage	Region	Load Z	Leakage Current (i)	Earth Ground (B) to:
110 to 130 V	U.S.A. or Canada	0.15 μF CAP. & 1.5 kΩ RES. Connected in parallel	i ≤ 0.5 mA rms	Exposed accessible parts

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

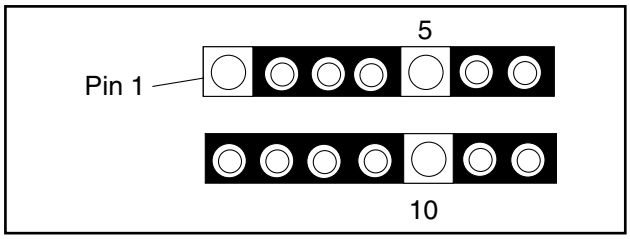
STANDARD NOTES FOR SERVICING

Circuit Board Indications

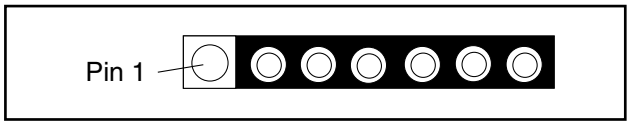
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



2. For other ICs, pin 1 and every fifth pin are indicated as shown.

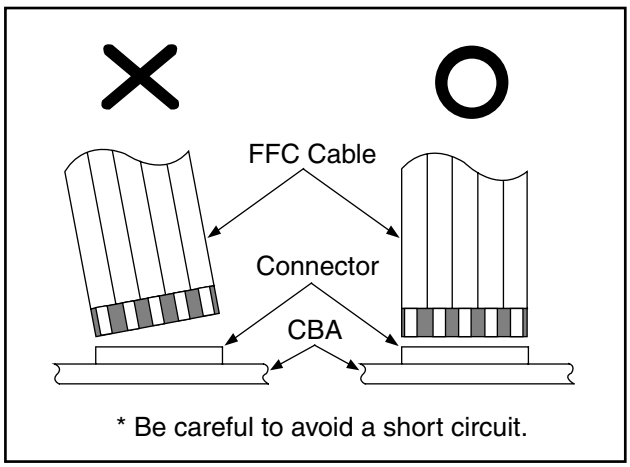


3. The 1st pin of every male connector is indicated as shown.



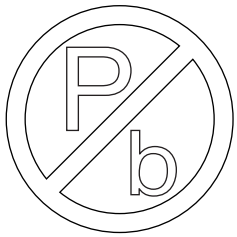
Instructions for Connectors

1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.



Pb (Lead) Free Solder

Pb free mark will be found on PCBs which use Pb free solder. (Refer to figure.) For PCBs with Pb free mark, be sure to use Pb free solder. For PCBs without Pb free mark, use standard solder.



Pb free mark

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

1. Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

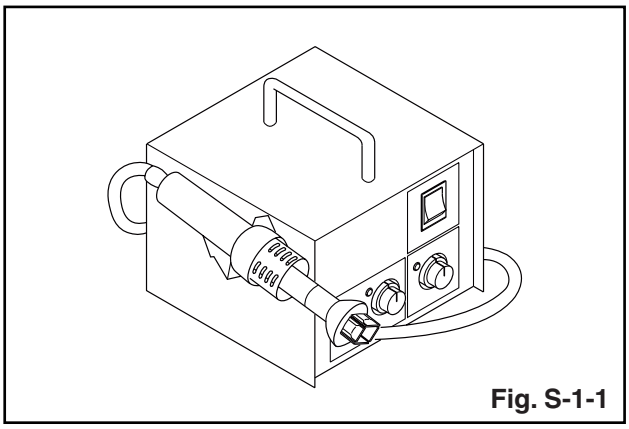


Fig. S-1-1

2. Remove the flat pack-IC with tweezers while applying the hot air.
3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

CAUTION:

1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.
2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape

around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)

3. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

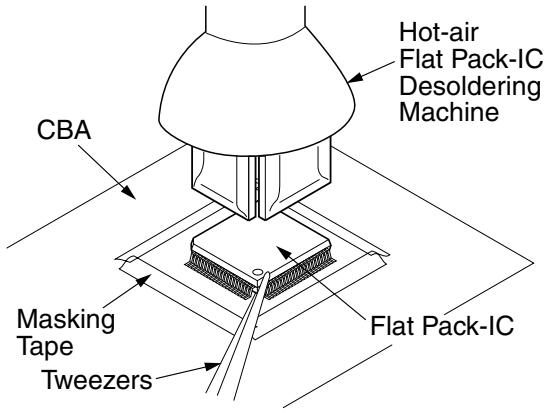


Fig. S-1-2

With Soldering Iron:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

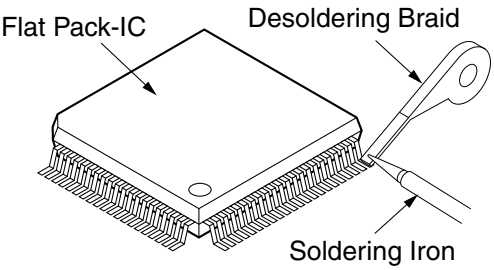


Fig. S-1-3

2. Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

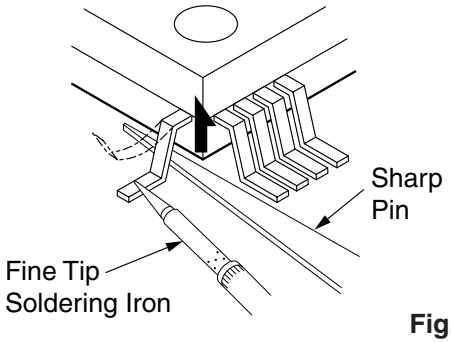


Fig. S-1-4

3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
2. Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
3. While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.
4. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
5. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note: When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

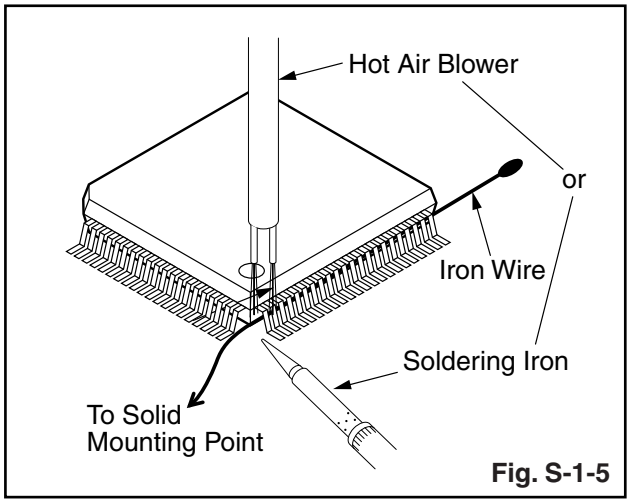


Fig. S-1-5

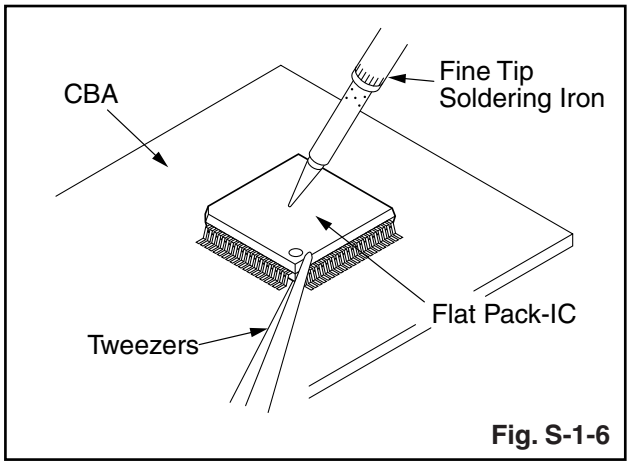


Fig. S-1-6

2. Installation

1. Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.
2. The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)
3. Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

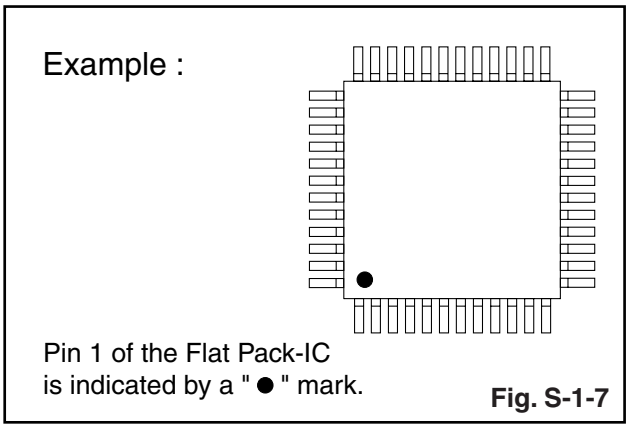


Fig. S-1-7

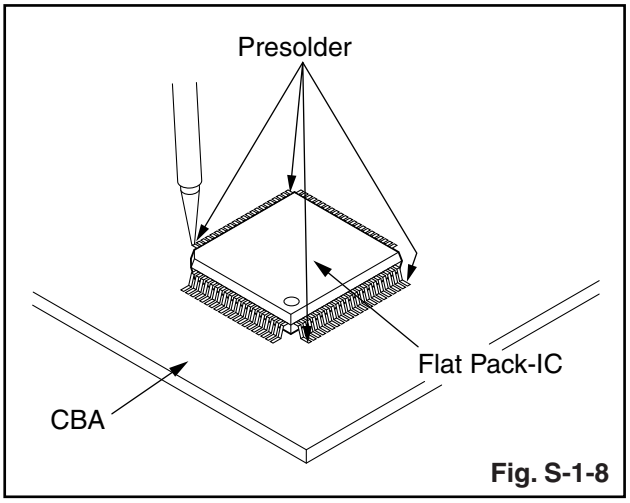


Fig. S-1-8

Instructions for Handling Semi-conductors

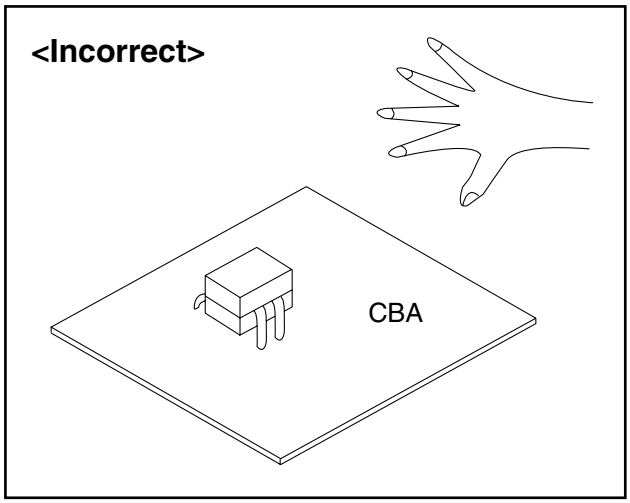
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

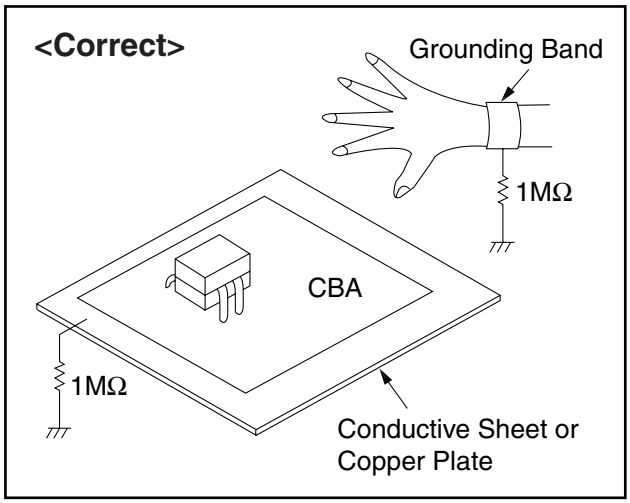
1. Ground for Human Body

Be sure to wear a grounding band (1 MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1 MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.

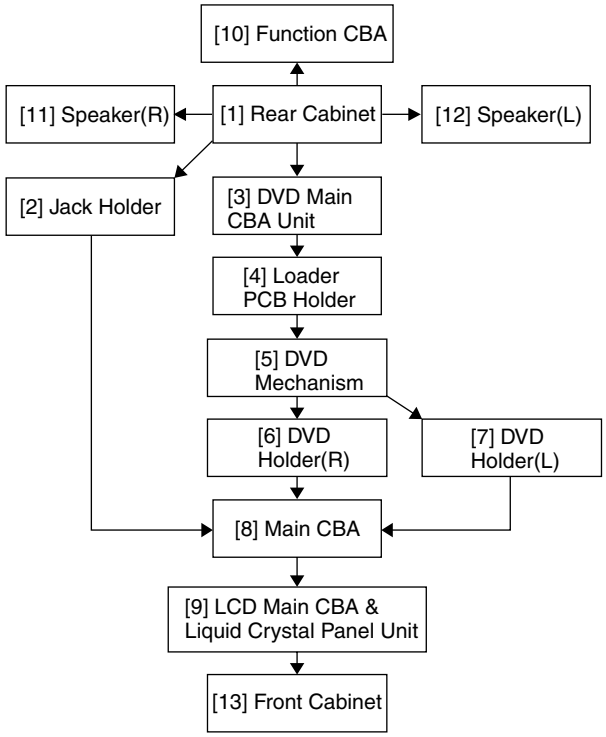




CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps for the cabinet parts, and the CBA in order to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route and dress the cables as they were.



2. Disassembly Method

Step/ Loc. No.	Part	Removal		
		Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Unclamp/ Desolder	Note
[1]	Rear Cabinet	D1	6(S-1), 2(S-2), 4(S-3), Tilt Stand Assembly	---
[2]	Jack Holder	D2	3(S-4), (S-5)	---
[3]	DVD Main CBA Unit	D2 D4	3(S-6), *CN201, *CN301, *CN401, *CN601, *CN801	1
[4]	Loader PCB Holder	D2	(S-7A), 2(S-7B)	---
[5]	DVD Mechanism	D2	3(S-8)	2
[6]	DVD Holder(R)	D2	2(S-9)	---
[7]	DVD Holder(L)	D2	2(S-10)	---
[8]	Main CBA	D3 D4	7(S-11), *CN101A, *CN102A, *CN103A, *CN801, *CN802, *CN1651, *CN402, *CN403	---
[9]	LCD Main CBA & Liquid Crystal Panel Unit	D3 D4	11(S-12), *CLN104, *CN1751	---
[10]	Function CBA	D3 D4	4(S-13)	---
[11]	Speaker(R)	D3 D4	2(S-14)	---
[12]	Speaker(L)	D3 D4	2(S-15)	---
[13]	Front Cabinet	D3	----------	---
↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)

Note:

(1) Order of steps in procedure. When reassembling, follow the steps in reverse order. These numbers are also used as the Identification (location) No. of parts in figures.

(2) Parts to be removed or installed.

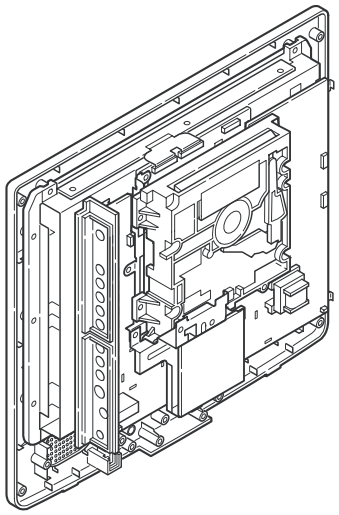
(3) Fig. No. showing procedure of part location

(4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P = Spring, L = Locking Tab, S = Screw,
CN = Connector
* = Unhook, Unlock, Release, Unplug, or Desolder
e.g. 2(S-2) = two Screws (S-2),
2(L-2) = two Locking Tabs (L-2)

(5) Refer to the following "Reference Notes in the Table."

Reference Notes

1. **CAUTION 1:** Electrostatic breakdown of the laser diode in the optical system block may occur as a potential difference caused by electrostatic charge accumulated on cloth, human body etc., during unpacking or repair work.
   To avoid damage of pickup follow next procedures.
   1) Short the three short lands of FPC cable with solder before removing the FFC cable (CN201) from it. If you disconnect the FFC cable (CN201), the laser diode of pickup will be destroyed. (Fig. D2)
   2) Disconnect Connectors (CN301), (CN401), (CN601) and (CN801). Remove three Screws (S-6) and remove the DVD Main CBA Unit. (Fig. D2)
2. **CAUTION 2:** When reassembling, confirm the FFC cable (CN201) is connected completely. Then remove the solder from the three short lands of FPC cable. (Fig. D2)
3. **How to eject a disc in emergency**
   Press and hold [EJECT] on the unit for more than 5 seconds.



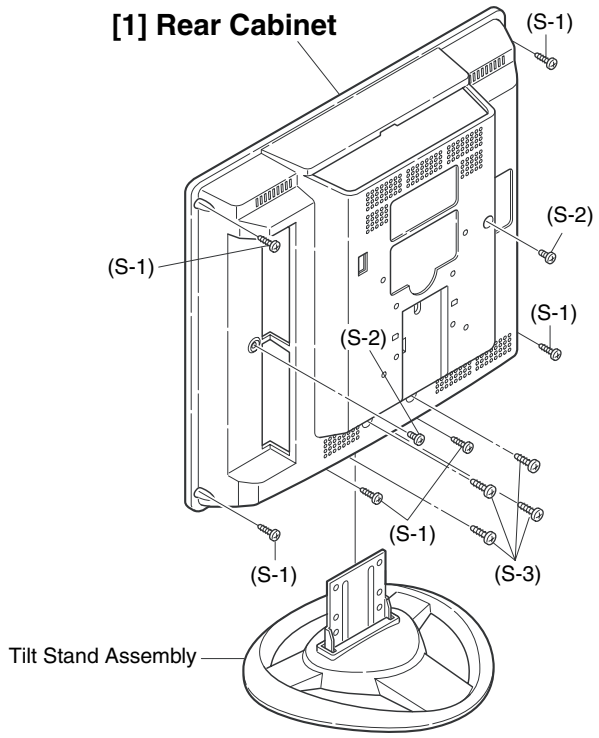


Fig. D1

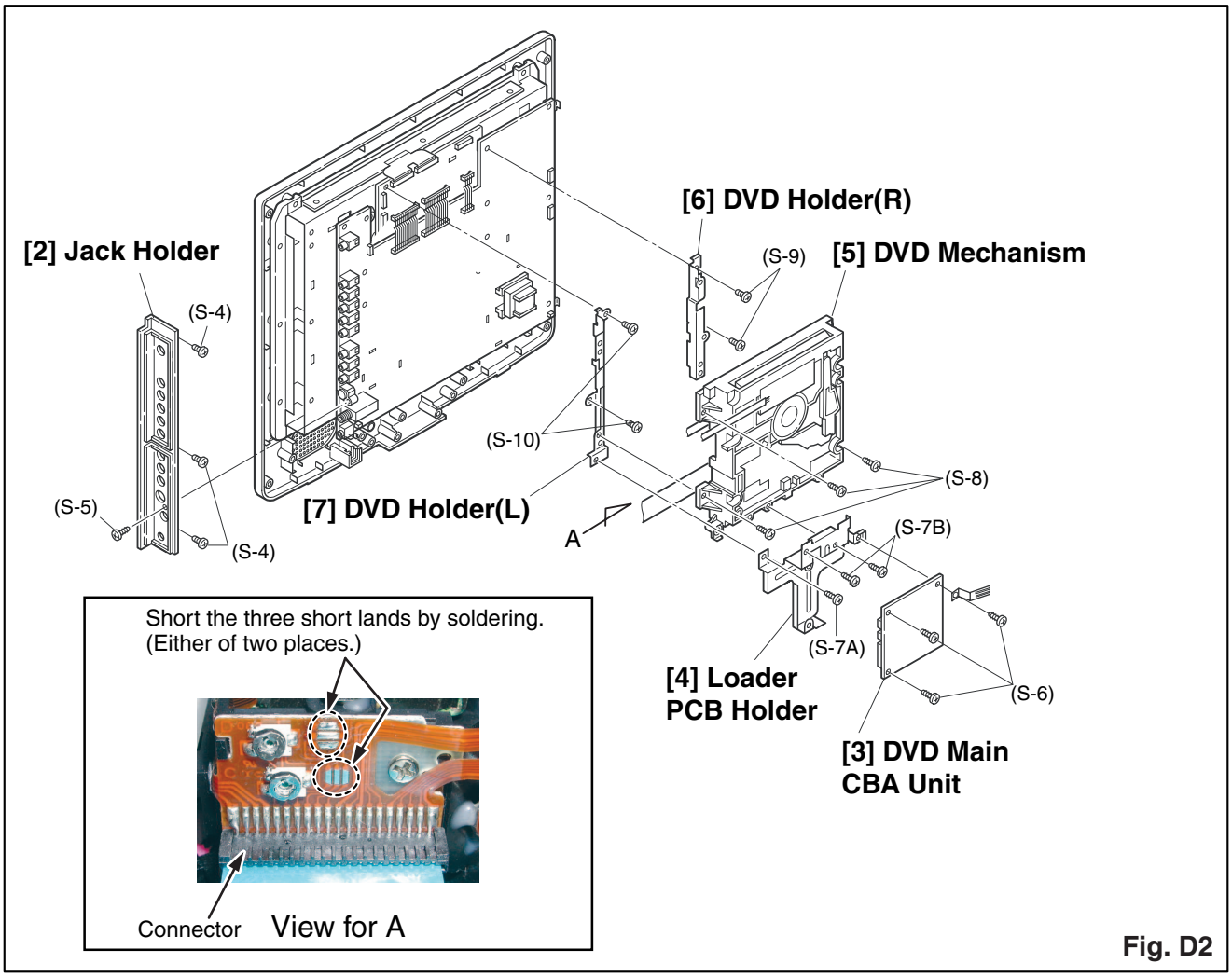

[2] Jack Holder
(S-4)
(S-5)
(S-4)
[7] DVD Holder(L)
[6] DVD Holder(R)
(S-9)
[5] DVD Mechanism
(S-10)
(S-8)
A
(S-7B)
(S-7A)
[4] Loader
PCB Holder
(S-6)
[3] DVD Main
CBA Unit
Short the three short lands by soldering.
(Either of two places.)
Connector
View for A

Fig. D2

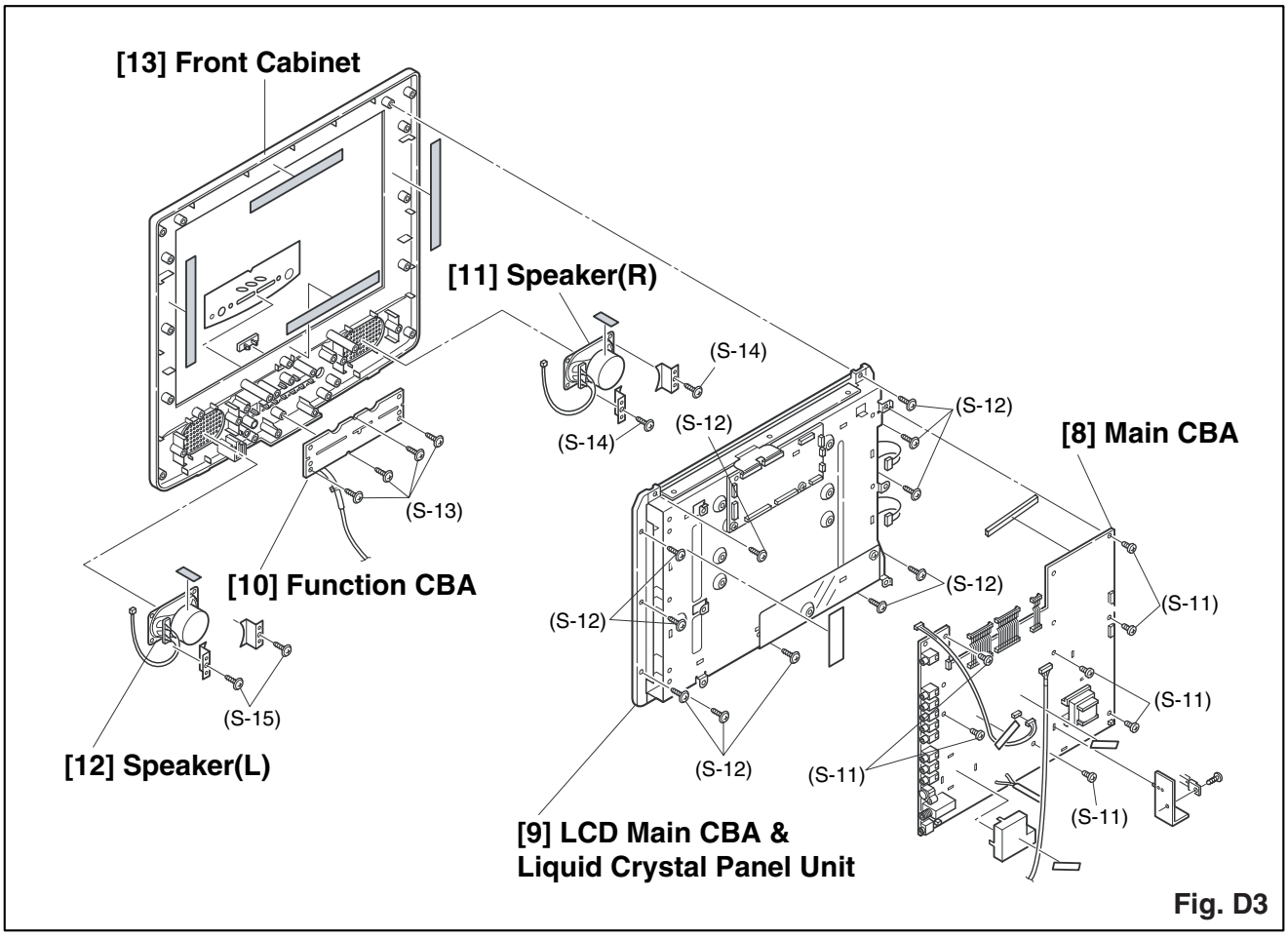

[13] Front Cabinet
[11] Speaker(R)
(S-14)
(S-14)
(S-12)
(S-12)
[8] Main CBA
(S-13)
[10] Function CBA
(S-12)
(S-12)
(S-11)
(S-11)
(S-15)
[12] Speaker(L)
(S-12)
(S-11)
(S-11)
[9] LCD Main CBA &
Liquid Crystal Panel Unit

Fig. D3

TV Cable Wiring Diagram

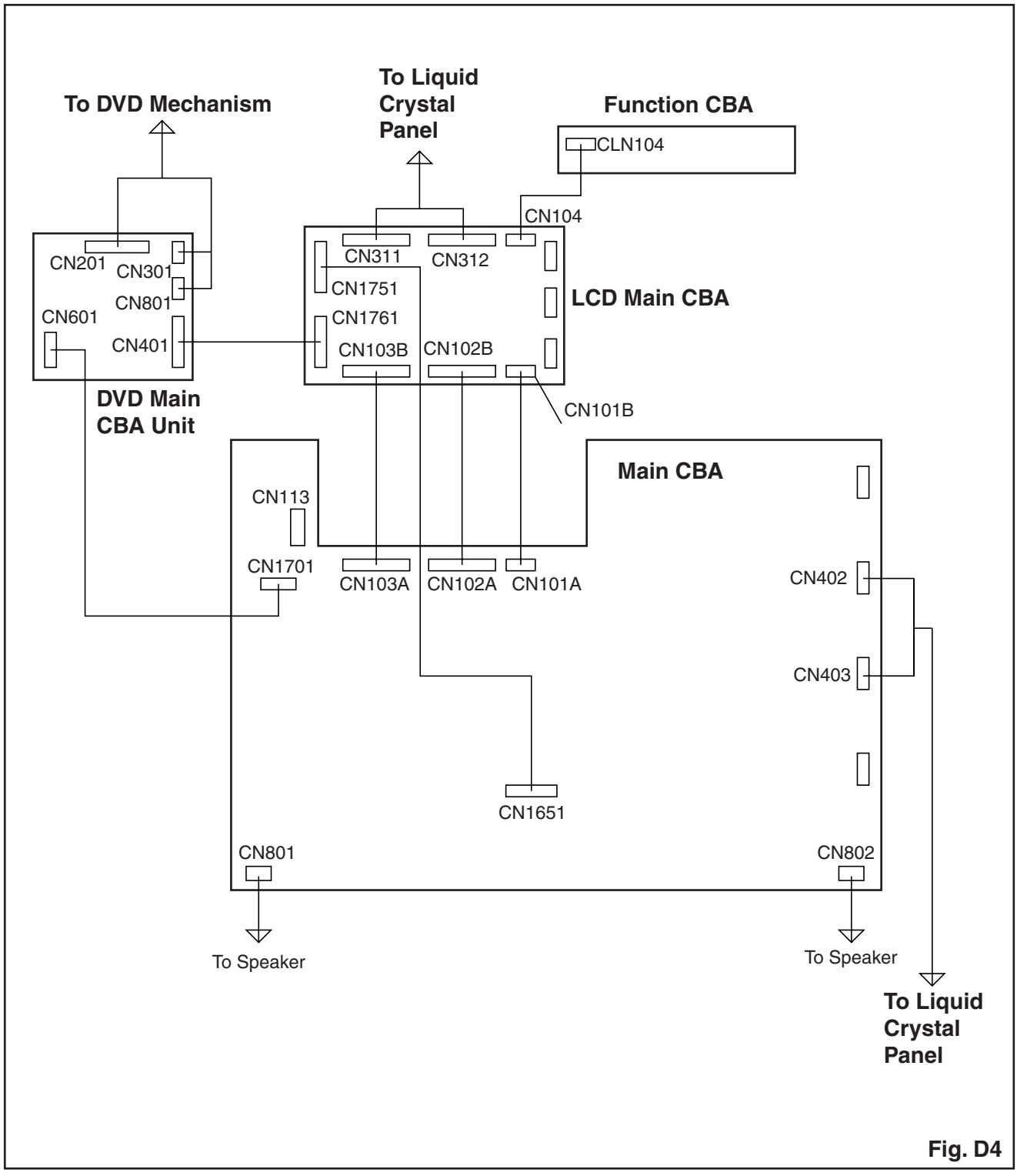


Fig. D4

3. How to Eject Manually

1. Remove the Rear Cabinet.
2. To remove the Loader PCB Holder with the DVD Main CBA Unit, remove three screws (S-7) in Fig. D2. Do not disconnect connectors.
3. To remove the Chassis Cover, remove 4 screws A as shown in Fig. D5.
4. Remove a disc.

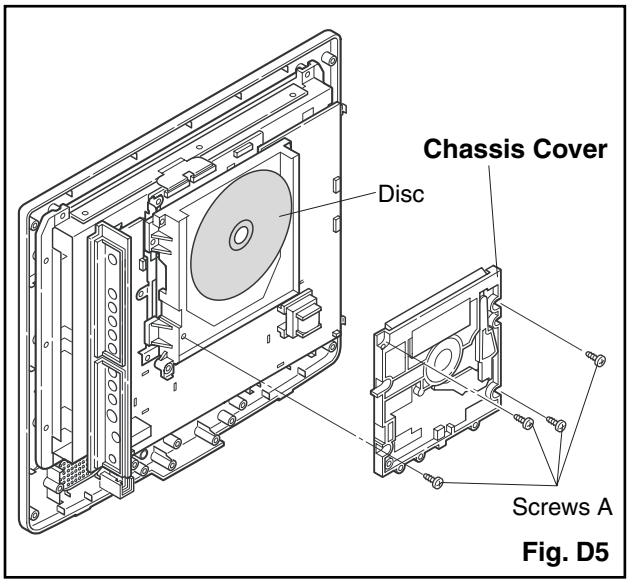


Fig. D5

Reassembly note of the Chassis Cover:

1. Insert the pin A on the Chassis Cover into the hole A on the Main Chassis as shown in Fig. D6.

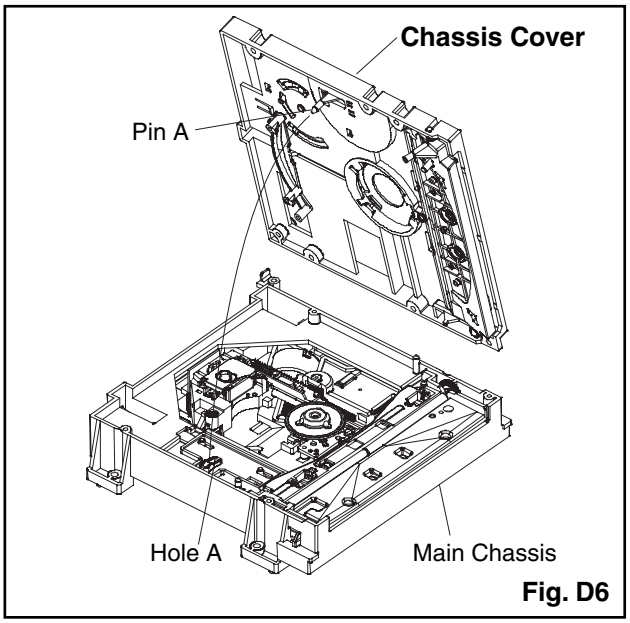


Fig. D6

2. Tighten 4 screws A as shown in Fig. D5.

ELECTRICAL ADJUSTMENT INSTRUCTIONS

General Note: "CBA" is abbreviation for "Circuit Board Assembly."

Note: Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed.
Also, do not attempt these adjustments unless the proper equipment is available.

Test Equipment Required

1. DC Voltmeter
2. NTSC Pattern Generator (Color Bar W/White Window, Red Color, Dot Pattern, Gray Scale, Monoscope, Multi-Burst)
3. Remote control unit: Part No. NE240UD
4. Color Analyzer

How to make Service remote control unit:

1. Prepare normal remote control unit (Part No. NE240UD). Remove 3 screws from the back lid (Fig. 1-1).

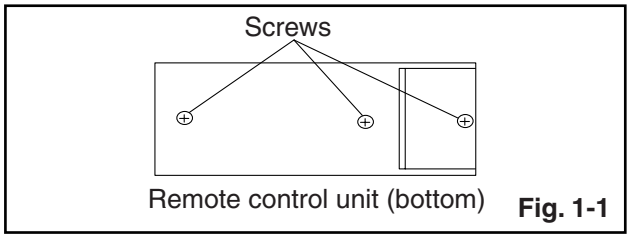


Fig. 1-1

2. Cut off pin 10 of the remote control microprocessor and short circuit pins 10 and 17 of the microprocessor with a jumper wire.

How to set up the service mode:

Service mode:

1. Use the service remote control unit.
2. Turn the power on. (Use main power on the TV unit.)
3. Press [DISC MENU] button on the service remote control unit. Version of micro computer will be displayed on the LCD or display. (Ex: A95FP-0.23)

1. Initial Setting

General: Enter the Service mode. (See page 6-1.)

Set the each initial data as shown on table 1 below.

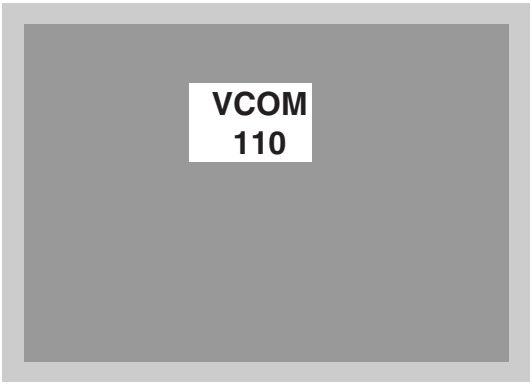
Table 1: Initial Data

Item	Button [Use the attached remote control unit. (not service remote control unit)]	Data Value
BRT	[MENU] → [1]	120
CNT		140
CLR-R		64
CLR-B		64
TNT		128
V-TNT		128
SHR		35
S-BRT	[MENU] → [2]	120
S-CNT		140
S-CLR-R		64
S-CLR-B		64
S-TNT		128
S-SHR		35
C-BRT	[MENU] → [3]	120
C-CNT		140
C-CLR-R		79
C-CLR-B		79
C-TNT		128
C-SHR		35

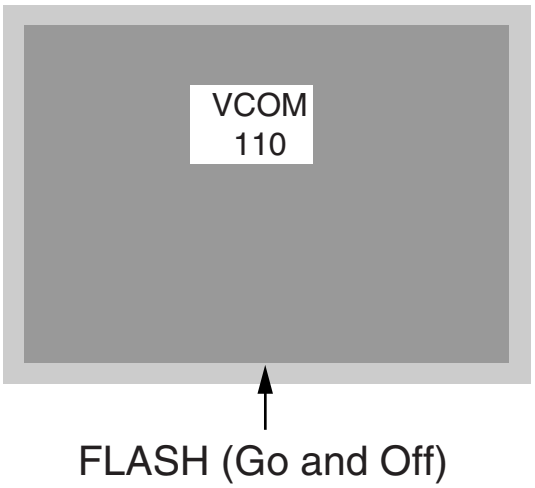
Item	Button [Use the attached remote control unit. (not service remote control unit)]	Data Value
D2-BRT	[MENU] → [5]	117
D2-CNT		144
D2-CLR-R		82
D2-CLR-B		82
D2-TNT		128
D2-SHR		35
D3-BRT	[MENU] → [6]	120
D3-CNT		140
D3-CLR-R		77
D3-CLR-B		77
D3-TNT		127
D3-SHR		30
DR(C/D1)	[VOL ▼] → [4]	181
C-DR(C/D2)		181
DB(C/D1)	[VOL ▼] → [6]	158
C-DB(C/D2)		158

2. Flicker Adjustment

1. Enter the Service mode. (See page 6-1.)
2. Press [2] button on the remote control unit. The following screen appears.



3. If Flicker Adjustment is not fit, the screen becomes the following.



4. Press [CH. ▲ / ▼] buttons on the remote control unit so that flash stops.

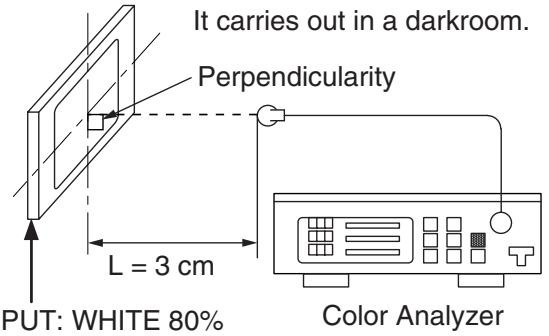
The following adjustment normally are not attempted in the field. Only when replacing the LCD Panel then adjust as a preparation.

3. White Balance Adjustment

Purpose: To mix red, green and blue beams correctly for pure white.

Symptom of Misadjustment: White becomes bluish or reddish.

Test Point	Adj. Point	Mode	Input
Screen	VOL. ▼ buttons	**[RF/VIDEO1]** C/D1 **[VIDEO2]** C/D2	White Purity (APL 80%)
M. EQ.		Spec.	
Pattern Generator, Color analyzer		x: 0.256 to 0.316, y: 0.264 to 0.324	
Figure			



Note: Use the remote control unit.

1. Operate the unit for more than 20 minutes.
2. Input the White Purity (APL 80%).
3. Set the color analyzer to the CHROMA mode and bring the optical receptor to the center on the LCD-Panel surface after zero point calibration as shown above.
   Note: The optical receptor must be set perpendicularly to the LCD Panel surface.
4. **[RF/VIDEO1]**
   Enter the Service mode. Press "VOL ▼" button on the remote control unit and select "C/D1-" mode.
   [VIDEO2]
   Enter the Service mode. Press "VOL ▼" button on the remote control unit and select "C/D2-" mode.
5. **[RF/VIDEO1]**
   When "x" value and "y" value are not within specification, adjust "DB (C/D1)" or "DR (C/D1)". Refer to "1. Initial Setting."
   Note: "DB(C/D1)" or "DR(C/D1)" must be adjusted within ±0.01.
   [VIDEO2]
   When "x" value and "y" value are not within specification, adjust "DB(C/D2)" or "DR(C/D2)". Refer to "1. Initial Setting."
   Note: "C-DB(C/D2)" or "C-DR(C/D2)" must be adjusted within ±0.01.
6. Turn the power off and on again. (Main power button on the TV unit.)

HOW TO INITIALIZE THE LCD TV/DVD

To put the program back at the factory-default, initialize the LCD TV/DVD as the following procedure.

< DVD Section >

1. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order.
   Fig. g appears on the screen.

"*******" differ depending on the models.

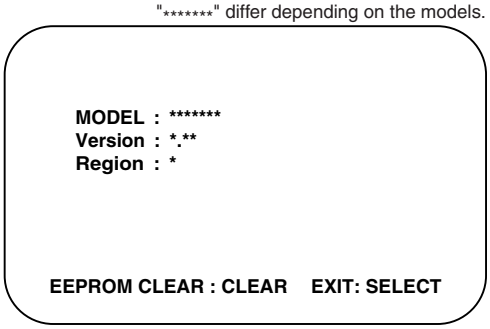


Fig. g

2. Press [CLEAR] button on the remote control unit.
   Fig. h appears on the screen.

"*******" differ depending on the models.

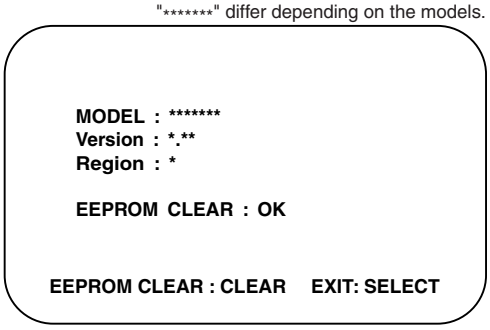


Fig. h

   When “OK” appears on the screen, the factory default will be set.
3. To exit this mode, press [CH. ▲ / ▼] or [SELECT] button to go to TV mode, or press [POWER] button to turn the power off.

< LCD TV Section >

1. Turn the power on. (Use main power on the TV unit.)
2. To enter the service mode, press [DISC MENU] button on the service remote control unit.
   - To cancel the service mode, press [POWER] button on the remote control.
3. To initialize the LCD television, press [DISPLAY] button on the remote control unit.
4. Confirm "FF" indication on the upper right of the screen.
5. Unplug the AC cord.

FIRMWARE RENEWAL MODE

1. Turn the power on and press [EJECT] button on the remote control unit to put the LCD TV/DVD into DVD mode. Then remove the disc.
2. To put the LCD TV/DVD into F/W version up mode, press [9], [8], [7], [6], and [SEARCH MODE] buttons on the remote control unit in that order.
   Fig. a appears on the screen.

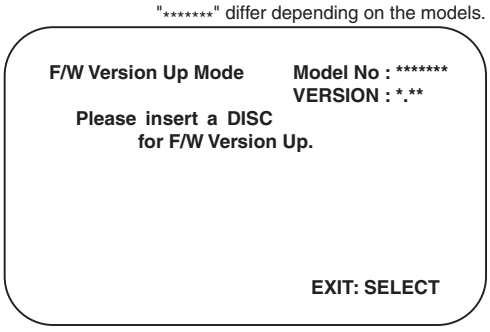


Fig. a Version Up Mode Screen

3. Insert the disc for version up into the disc slot.
4. The LCD TV/DVD enters the F/W version up mode automatically. Fig. c appears on the screen. If you enter the F/W for different models, “Disc Error” will appear on the screen, then the disc will be ejected automatically.

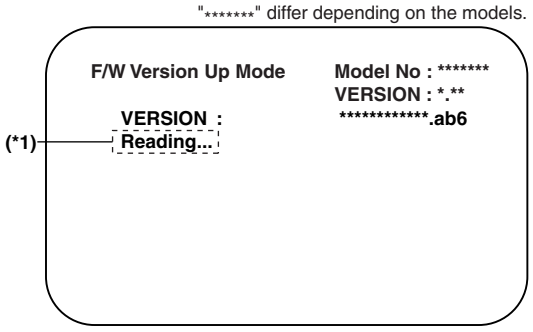


Fig. c Programming Mode Screen

The appearance shown in (*1) of Fig. c is described as follows:

No.	Appearance	State
1	Reading...	Sending files into the memory
2	Erasing...	Erasing previous version data
3	Programming...	Writing new version data

5. After programming is finished, the disc will be ejected automatically. Fig. e appears on the screen and the checksum will be shown in (*2).

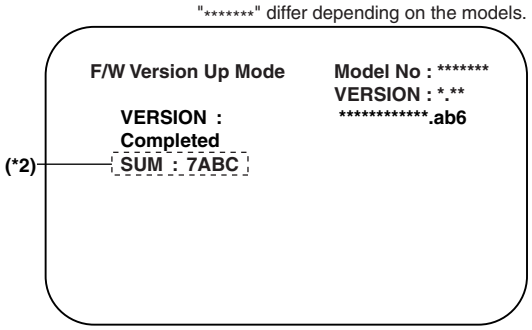


Fig. e Completed Program Mode Screen

At this time, no button is available.

6. Remove the disc.
7. Press [CH. ▲ / ▼] button on the unit to go to TV mode, or press [POWER] button on the unit to turn the power off.
8. Press [EJECT] button on the remote control unit to put the LCD TV/DVD into DVD mode again.
9. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order.
   Fig. g appears on the screen.

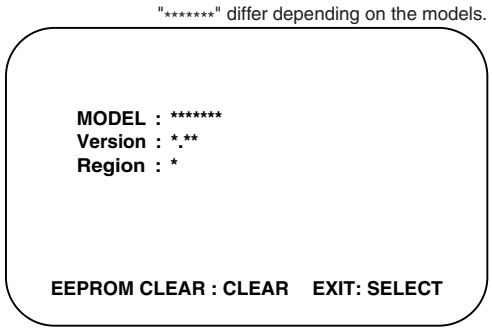


Fig. g

10. Press [CLEAR] button on the remote control unit.
    Fig. h appears on the screen.

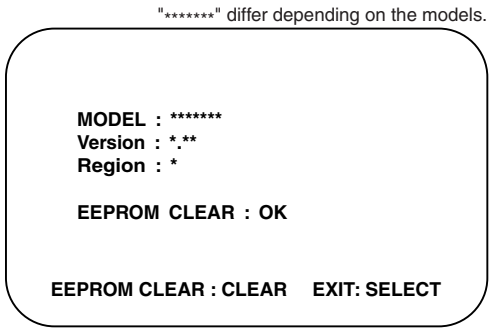


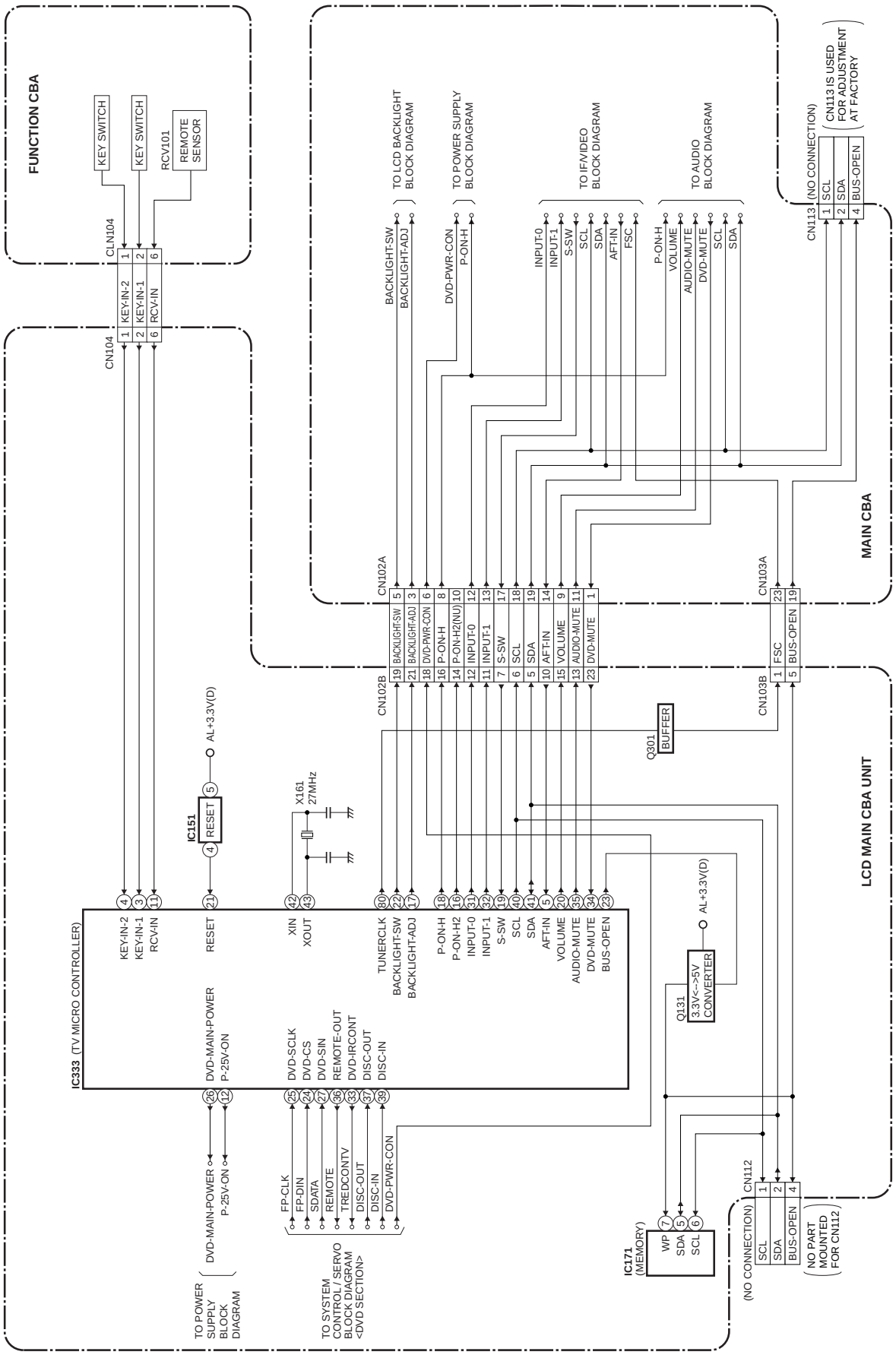
Fig. h

When “OK” appears on the screen, the factory default will be set. Then the firmware renewal mode is complete.

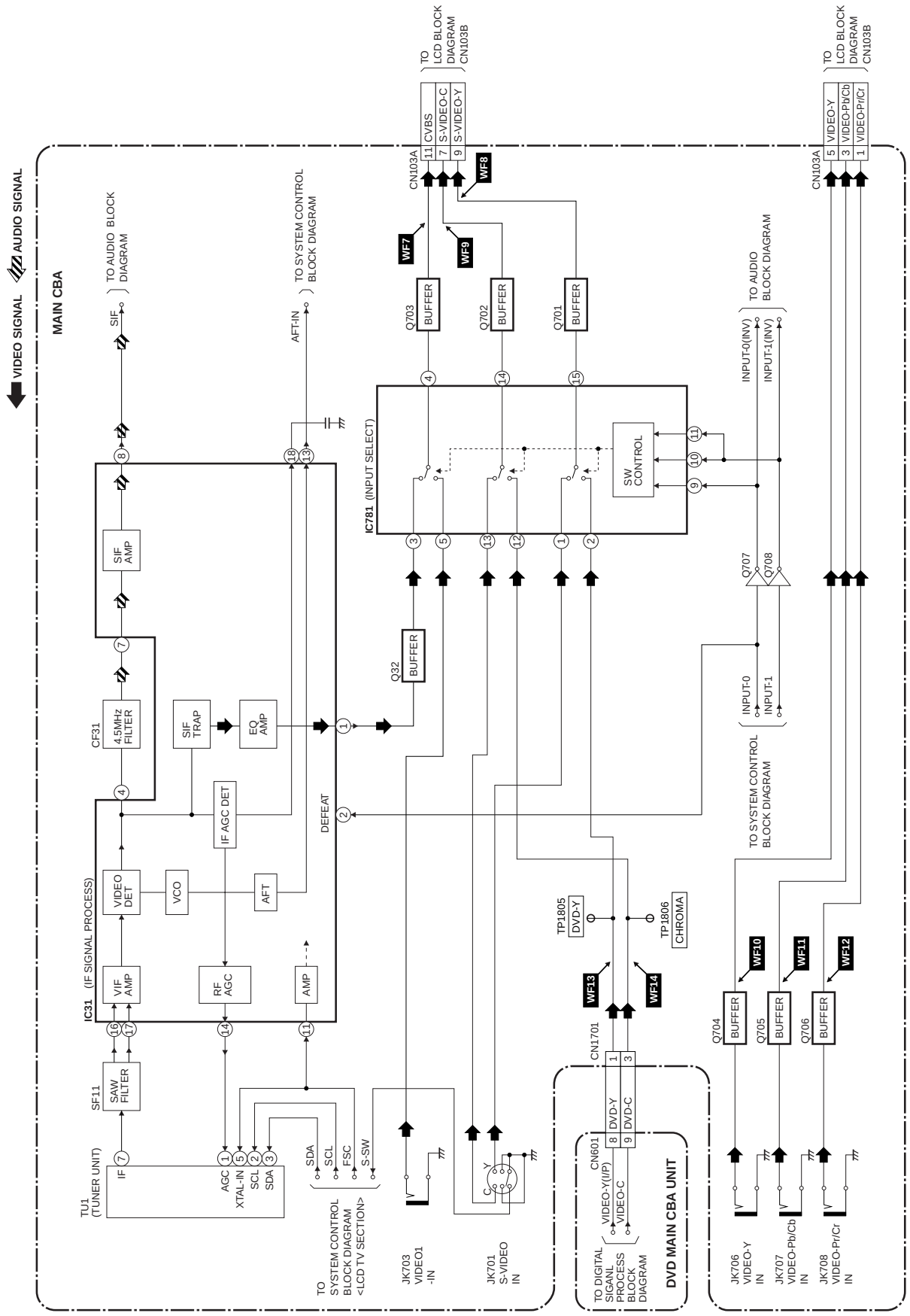
11. To exit this mode, press [CH. ▲ / ▼] or [SELECT] button to go to TV mode, or press [POWER] button to turn the power off.

BLOCK DIAGRAMS < LCD TV SECTION >

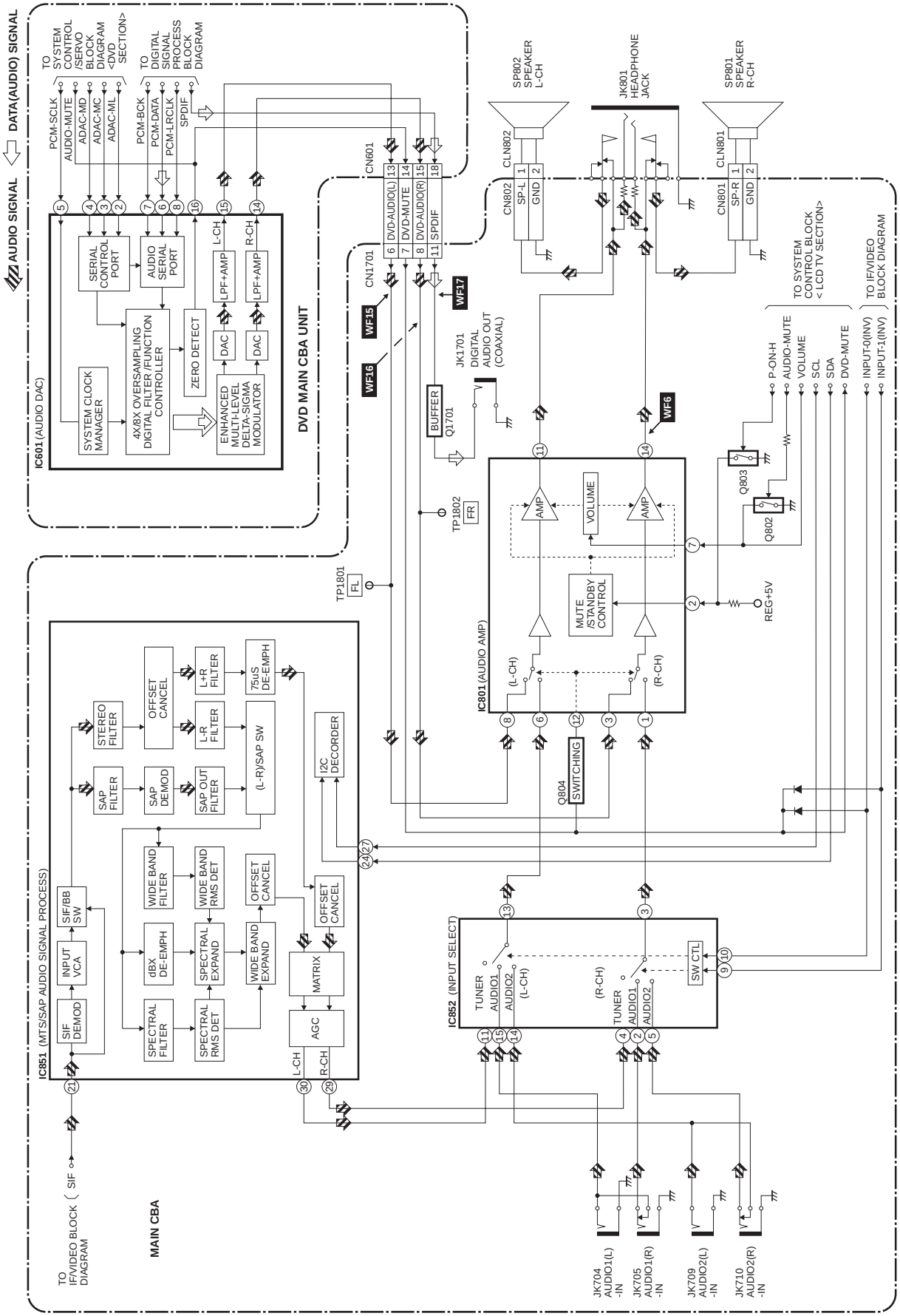
System Control Block Diagram



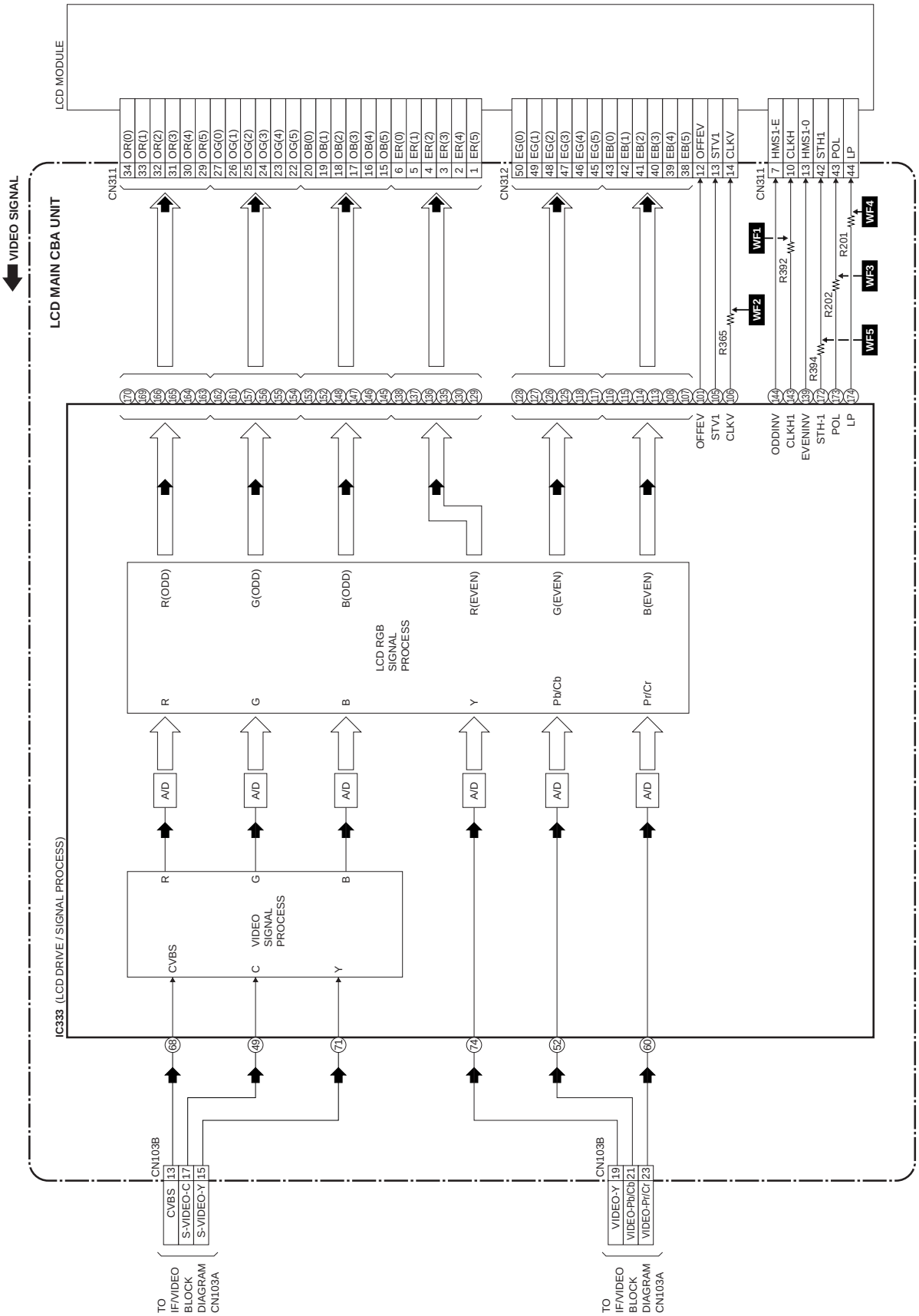
IF/Video Block Diagram



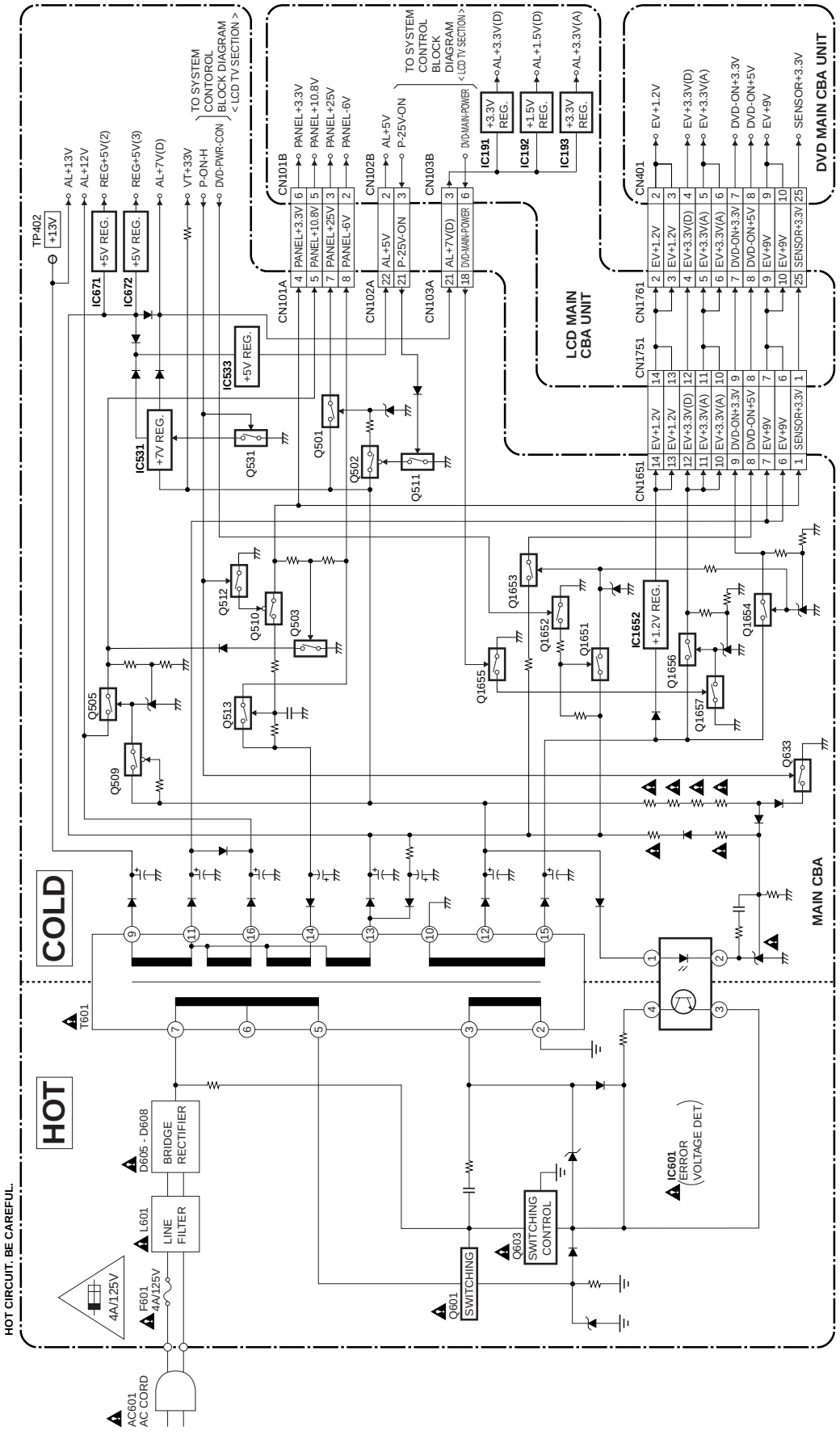
Audio Block Diagram



LCD Block Diagram



Power Supply Block Diagram



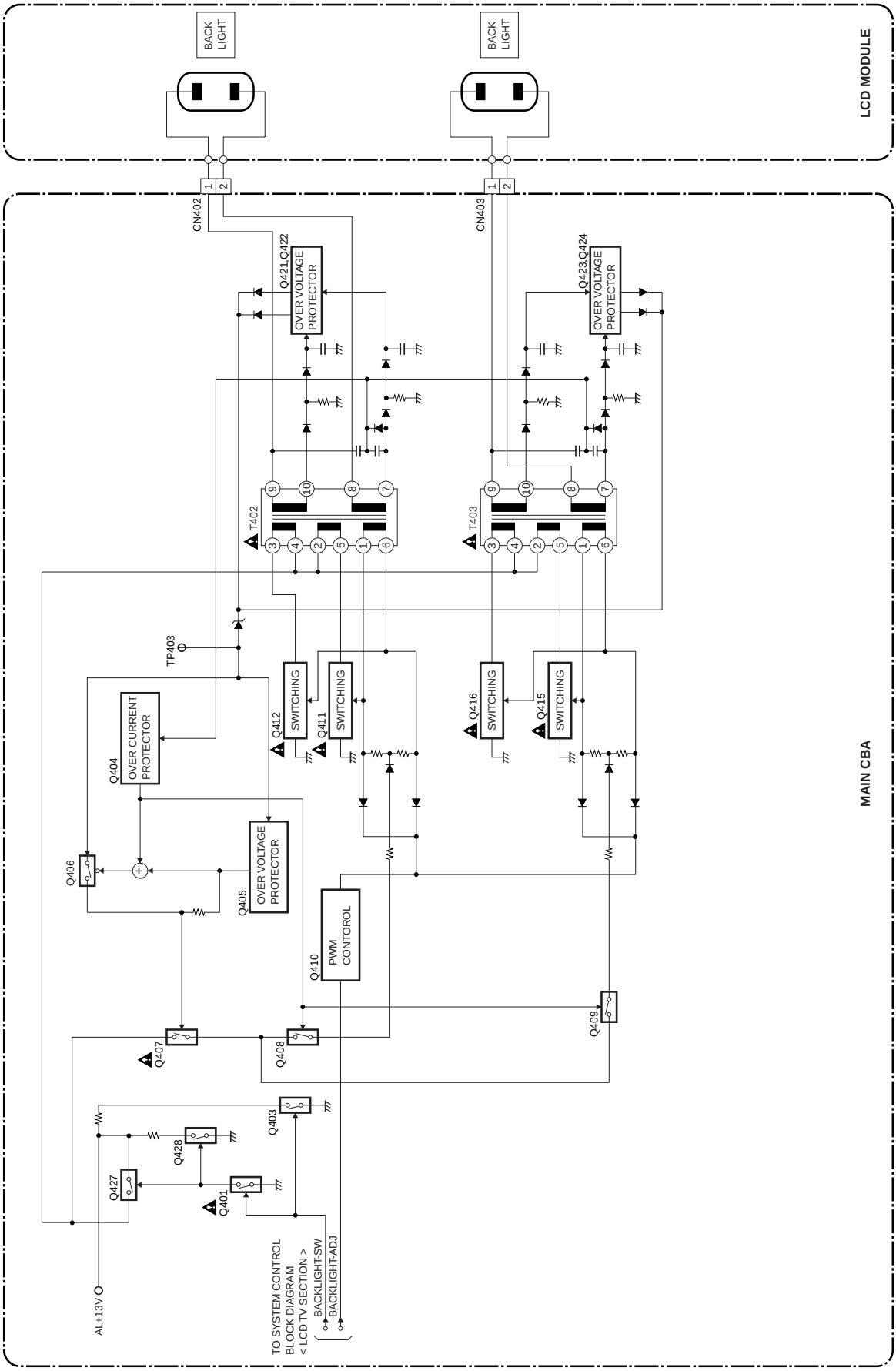
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

4A/125V

CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

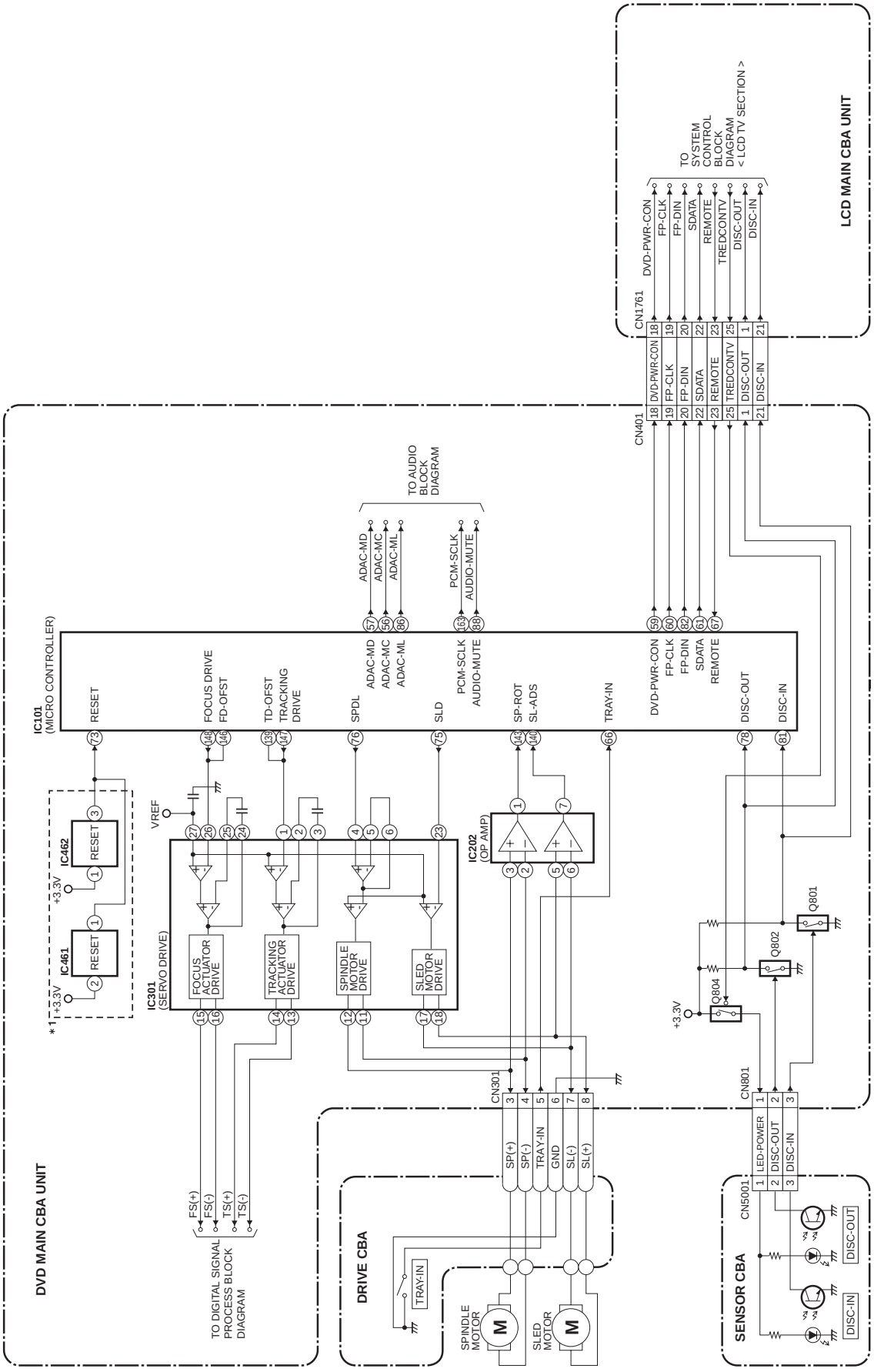
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

LCD Backlight Block Diagram



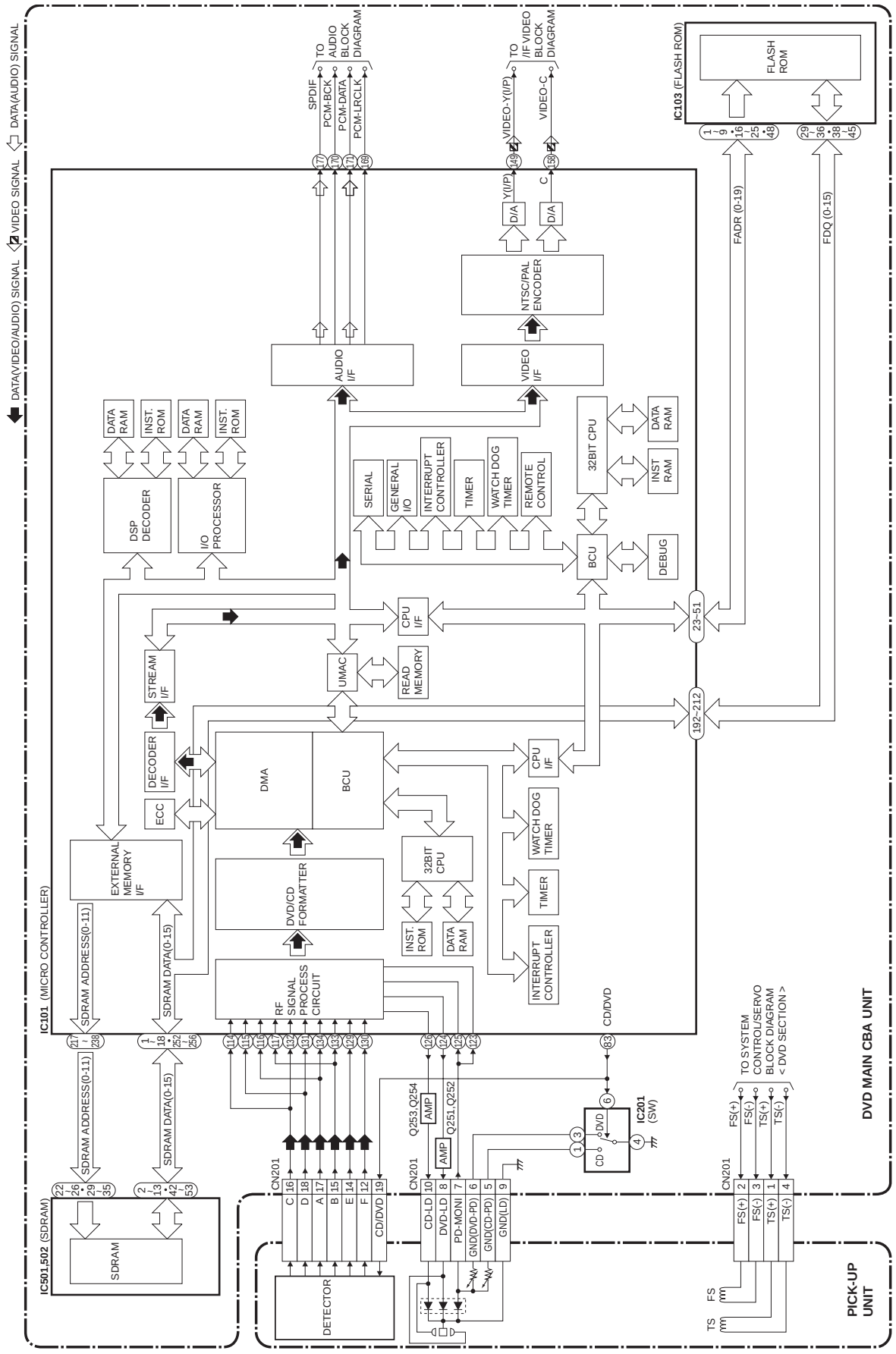
BLOCK DIAGRAMS < DVD SECTION >

System Control / Servo Block Diagram



***1 NOTE:**
Either IC461 or IC462 is used for DVD MAIN CBA UNIT.

Digital Signal Process Block Diagram



SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "⚠" in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms (K = 10^3, M = 10^6).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF (P = 10^{-6} μF).
5. All voltages are DC voltages unless otherwise specified.

Note of Capacitors:

ML --- Mylar Cap. PP --- Metallized Film Cap. SC --- Semiconductor Cap. L --- Low Leakage type

Temperature Characteristics of Capacitors are noted with the following:

B --- ±10% CH --- 0±60 ppm/°C CSL --- +350~-1000 ppm/°C

Tolerance of Capacitors are noted with the following:

Z --- +80~-20%

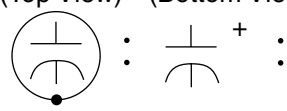
Note of Resistors:

CEM --- Cement Res. MTL --- Metal Res. F --- Fuse Res.

Capacitors and transistors are represented by the following symbols.

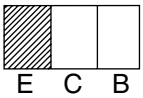
CBA Symbols

(Top View) (Bottom View)



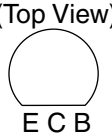
Electrolytic Capacitor

(Bottom View)



Transistor or Digital Transistor

(Top View)



NPN Transistor

(Top View)

PNP Transistor

(Top View)

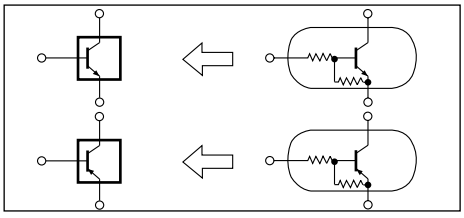
NPN Digital Transistor

(Top View)

PNP Digital Transistor

Schematic Diagram Symbols

Digital Transistor



LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION:

CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE_A,_V FUSE.

ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE_A,_V.

2. CAUTION:

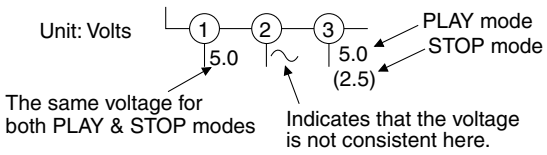
Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. Note:

1. Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.
2. To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

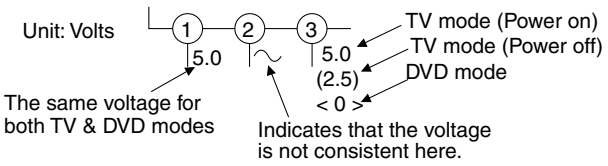
4. Voltage indications for PLAY and STOP modes on the schematics are as shown below:

< DVD Section >

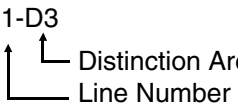


< TV Section >

Unit: Volts

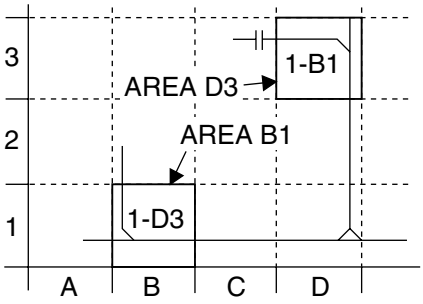


5. How to read converged lines



Examples:

1. "1-D3" means that line number "1" goes to the line number "1" of the area "D3".
2. "1-B1" means that line number "1" goes to the line number "1" of the area "B1".



6. Test Point Information

: Indicates a test point with a jumper wire across a hole in the PCB.

: Used to indicate a test point with a component lead on foil side.

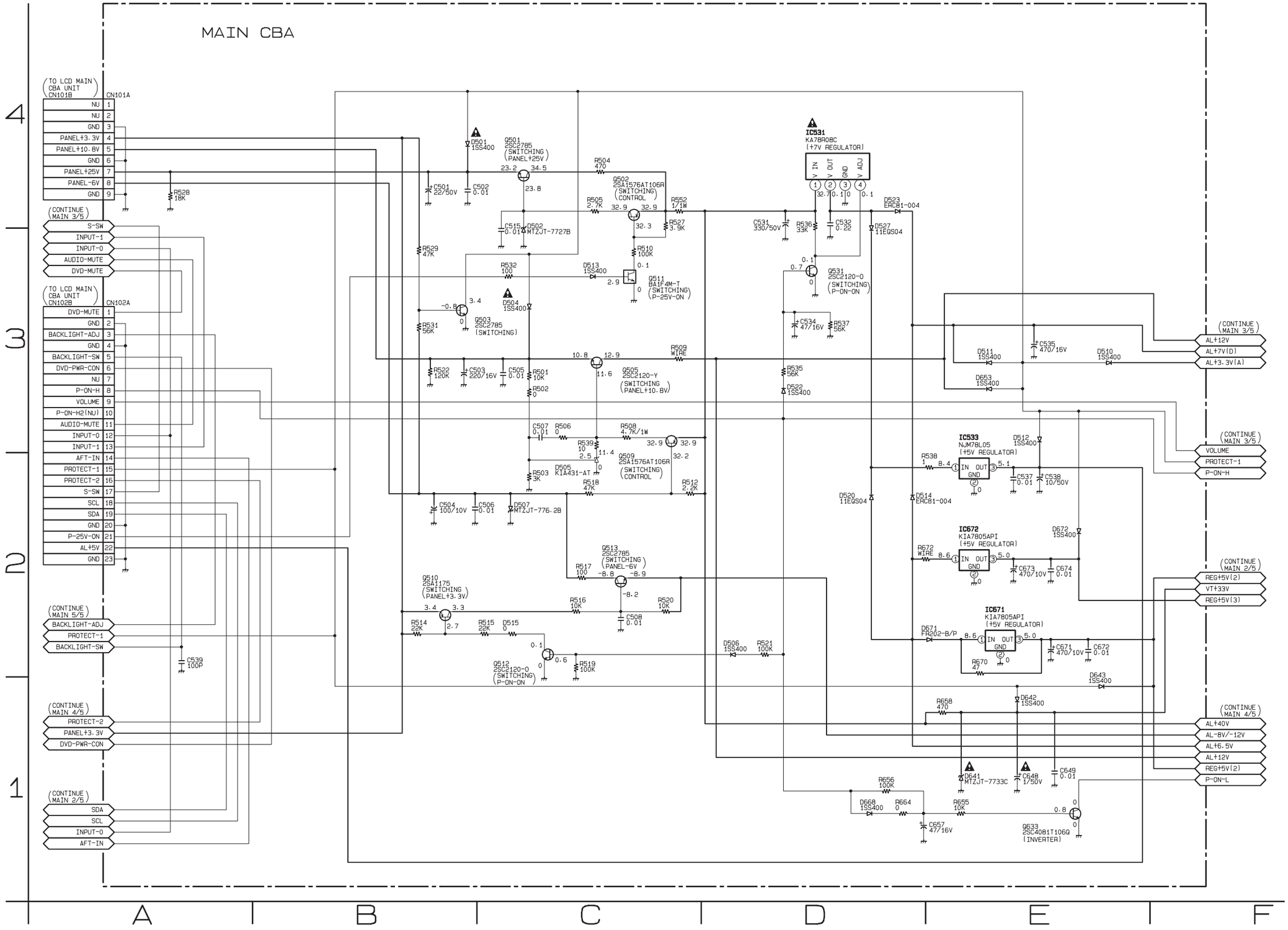
: Used to indicate a test point with no test pin.

: Used to indicate a test point with a test pin.

Main 1/5 Schematic Diagram

MAIN 1/5

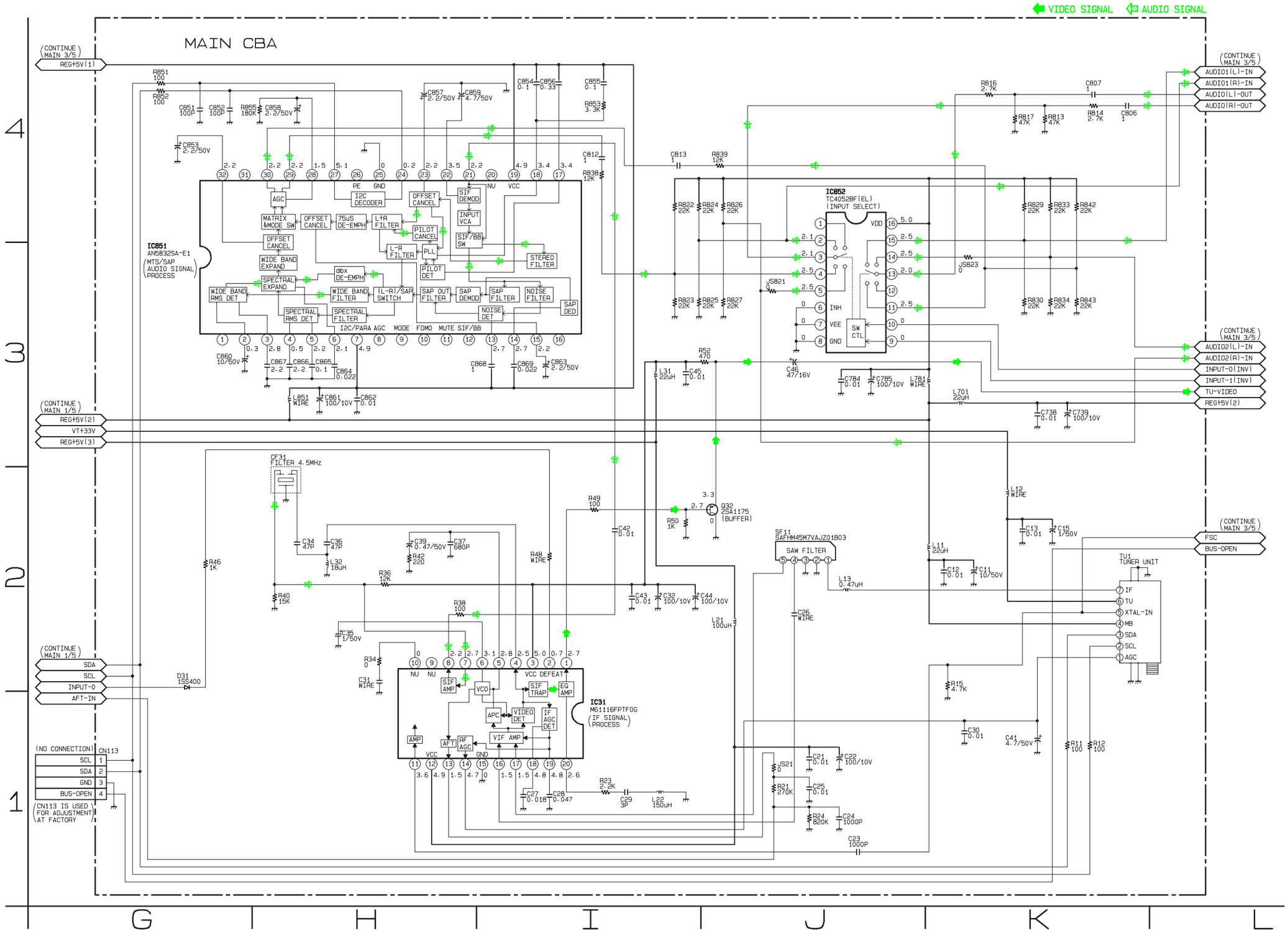
Ref No.	Position
ICS	
IC531	D-4
IC533	E-3
IC671	E-2
IC672	E-2
TRANSISTORS	
Q501	C-4
Q502	C-4
Q503	B-3
Q505	C-3
Q509	C-3
Q510	B-2
Q511	C-3
Q512	C-2
Q513	C-2
Q531	D-3
Q633	E-1
CONNECTORS	
CN101A	A-4
CN102A	A-3



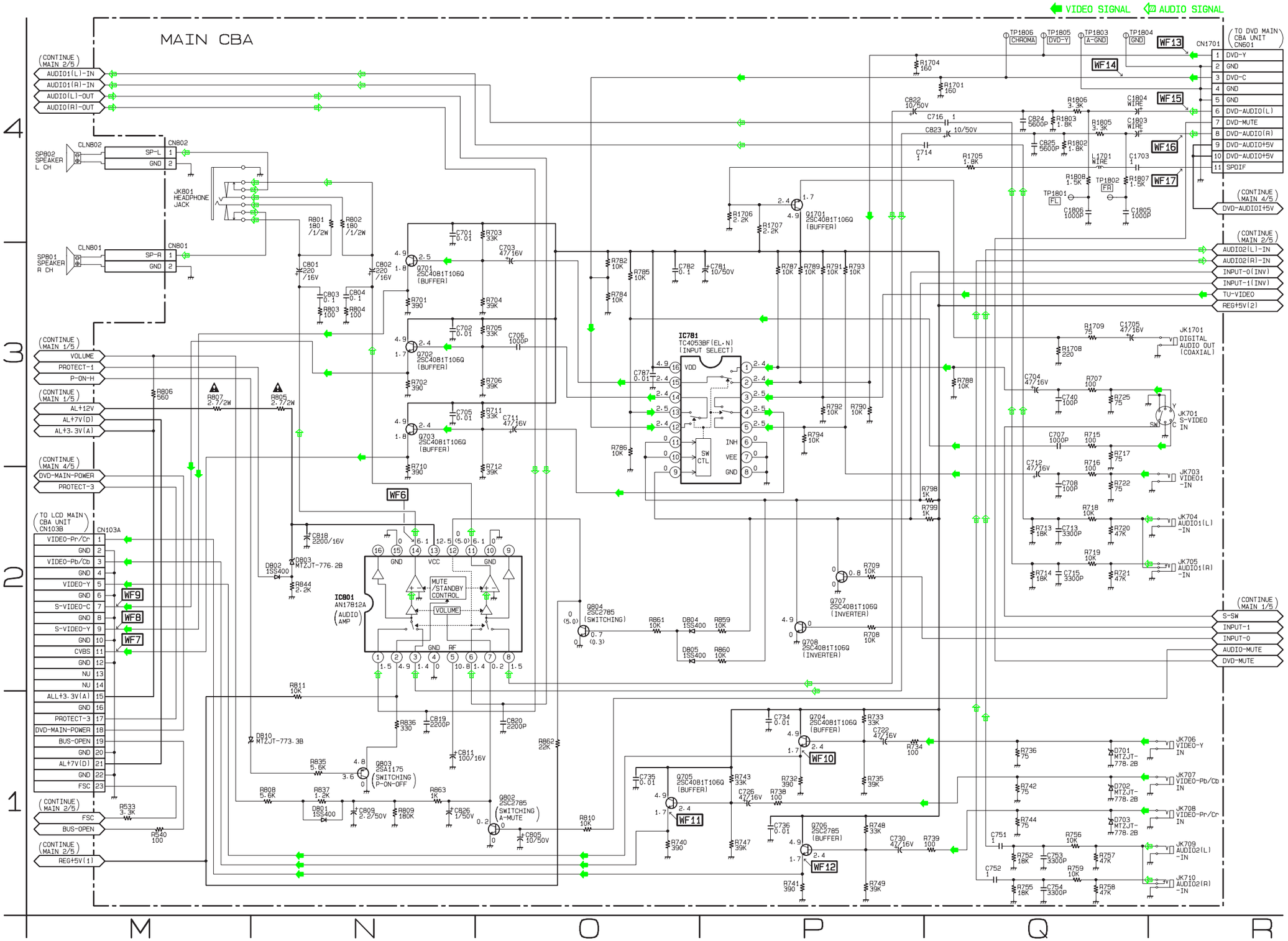
Main 2/5 Schematic Diagram

MAIN 2/5

Ref No.	Position
ICS	
IC31	I-1
IC851	H-3
IC852	J-4
TRANSISTOR	
Q32	J-2
CONNECTOR	
CN113	G-1



Main 3/5 Schematic Diagram



MAIN 3/5

Ref No.	Position
ICS	
IC781	P-3
IC801	N-2
TRANSISTORS	
Q701	N-3
Q702	N-3
Q703	N-3
Q704	P-1
Q705	O-1
Q706	P-1
Q707	P-2
Q708	P-2
Q802	O-1
Q803	N-1
Q804	O-2
Q1701	P-4
CONNECTORS	
CN103A	M-2
CN801	M-3
CN802	M-4
CN1701	R-4
TEST POINTS	
TP1801	Q-4
TP1802	Q-4
TP1803	Q-4
TP1804	Q-4
TP1805	Q-4
TP1806	Q-4

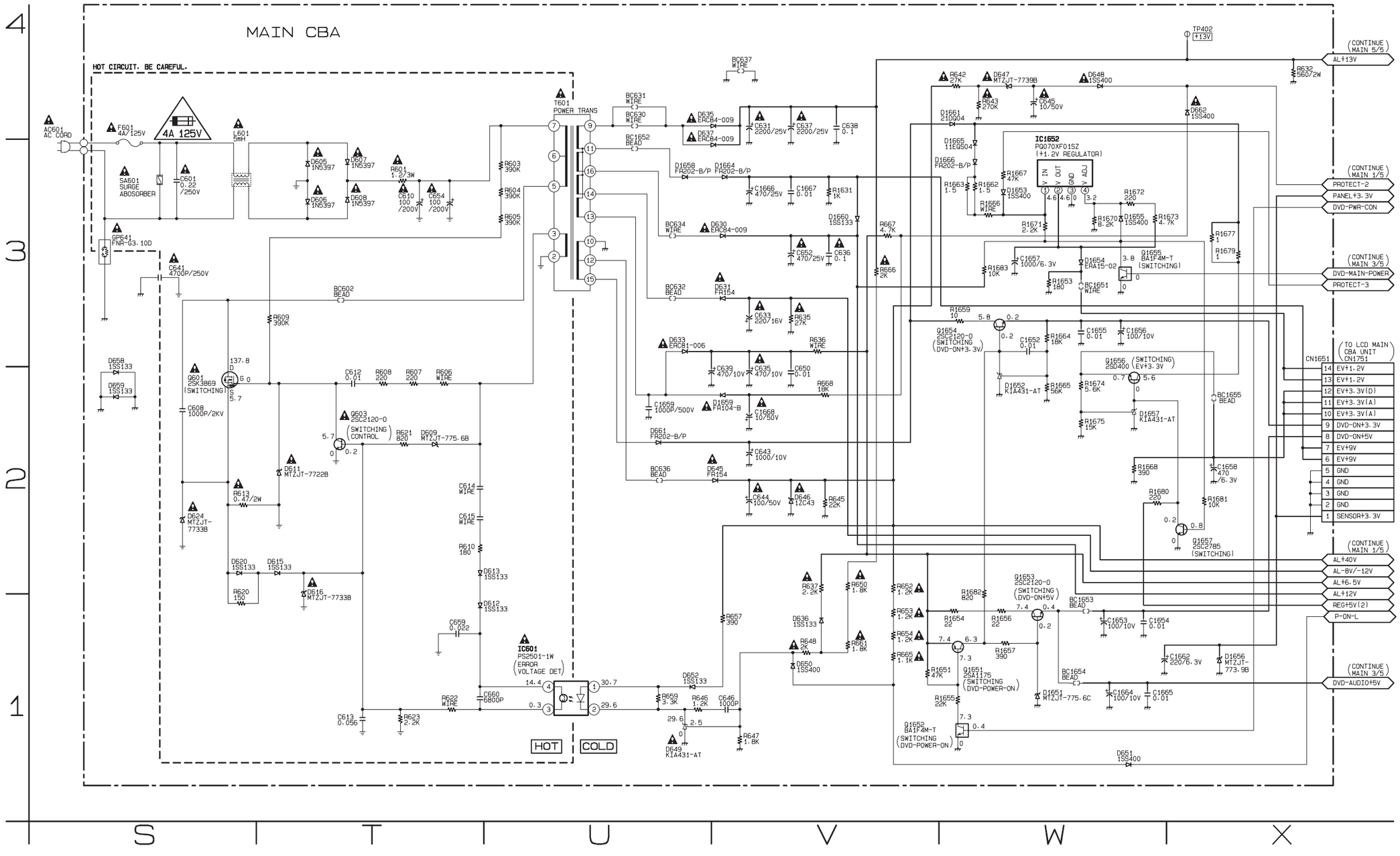
Main 4/5 Schematic Diagram

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

4A/125V

CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



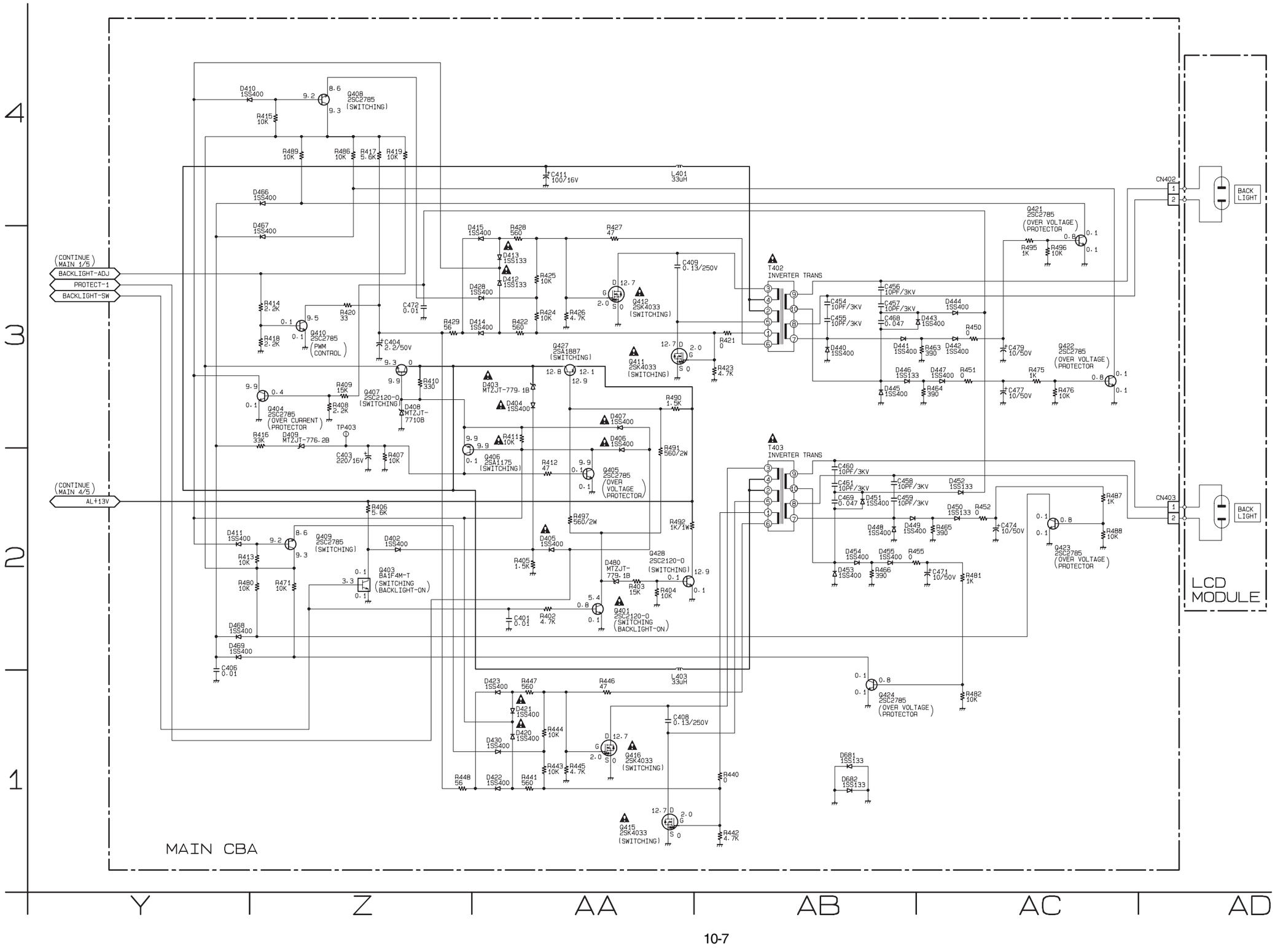
MAIN 4/5

Ref No.	Position
ICS	
IC601	U-1
IC1652	W-3
TRANSISTORS	
Q601	S-2
Q603	T-2
Q1651	W-1
Q1652	W-1
Q1653	W-1
Q1654	W-3
Q1655	W-3
Q1656	W-2
Q1657	X-2
TEST POINT	
TP402	X-4

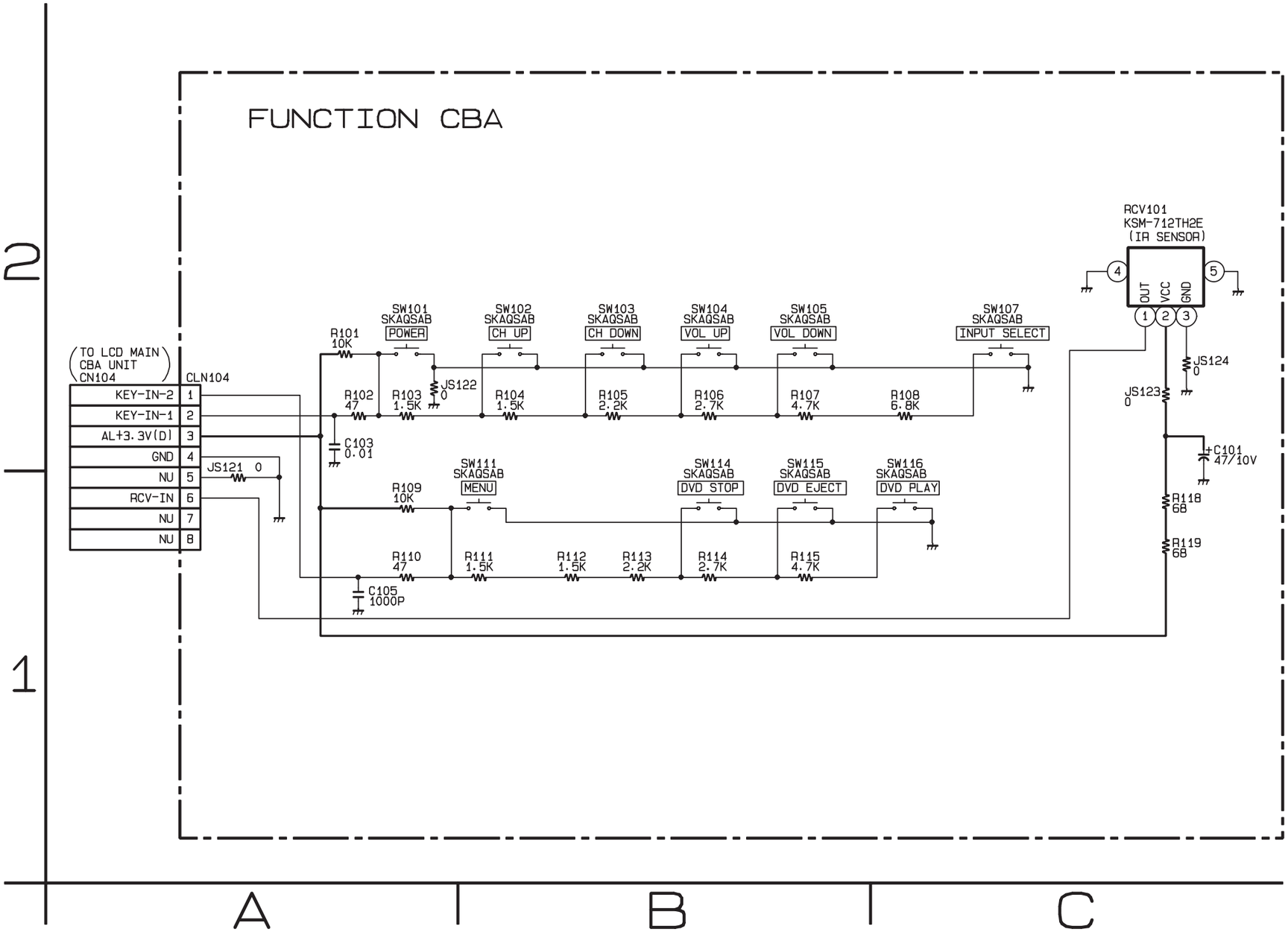
Main 5/5 Schematic Diagram

MAIN5/5

Ref No.	Position
TRANSISTORS	
Q401	AA-2
Q403	Z-2
Q404	Z-3
Q405	AA-2
Q406	AA-2
Q407	Z-3
Q408	Z-4
Q409	Z-2
Q410	Z-3
Q411	AA-3
Q412	AA-3
Q415	AA-1
Q416	AA-1
Q421	AC-3
Q422	AC-3
Q423	AC-2
Q424	AB-1
Q427	AA-3
Q428	AA-2
CONNECTORS	
CN402	AD-4
CN403	AD-2
TEST POINT	
TP403	Z-3



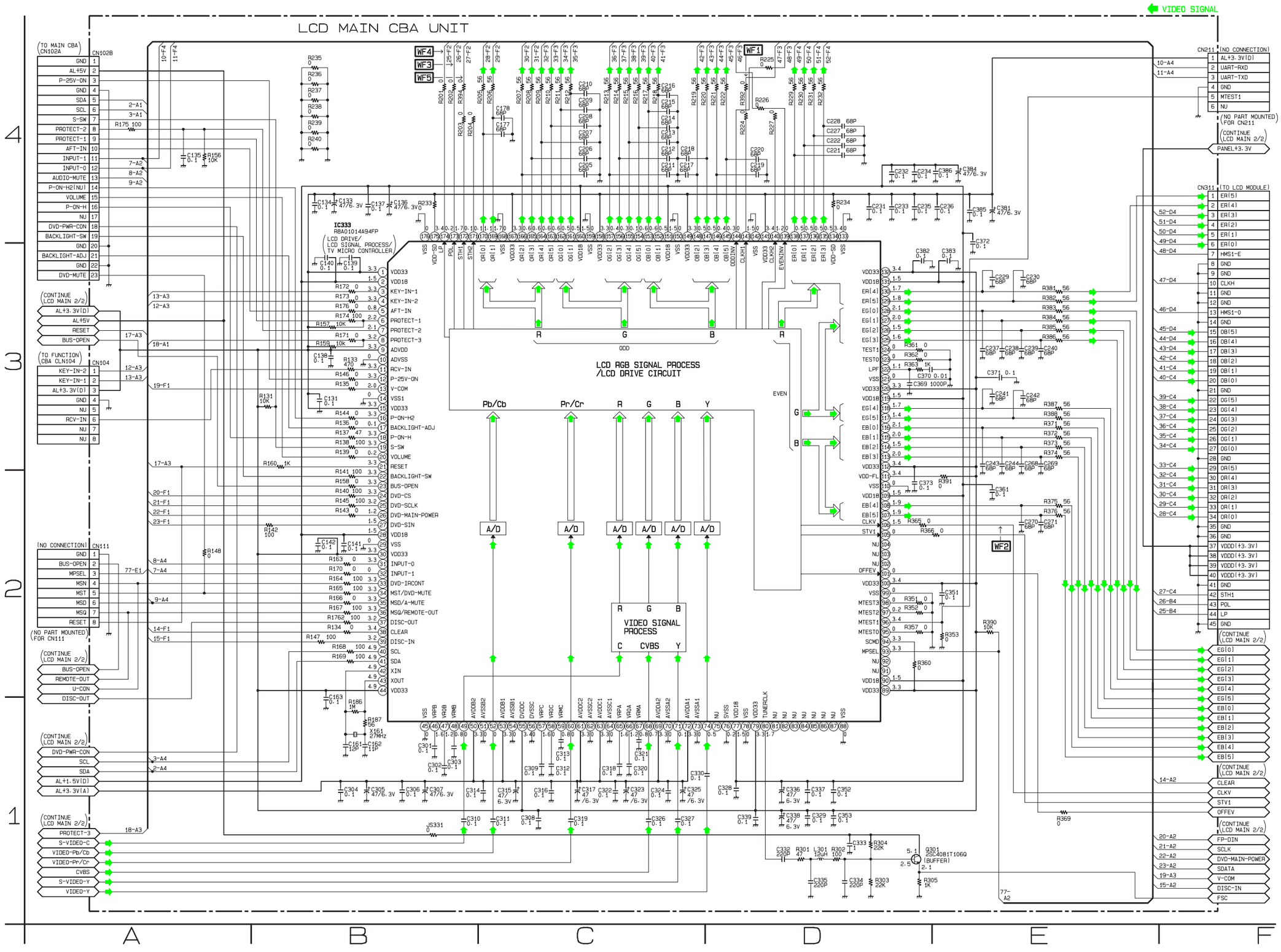
Function Schematic Diagram



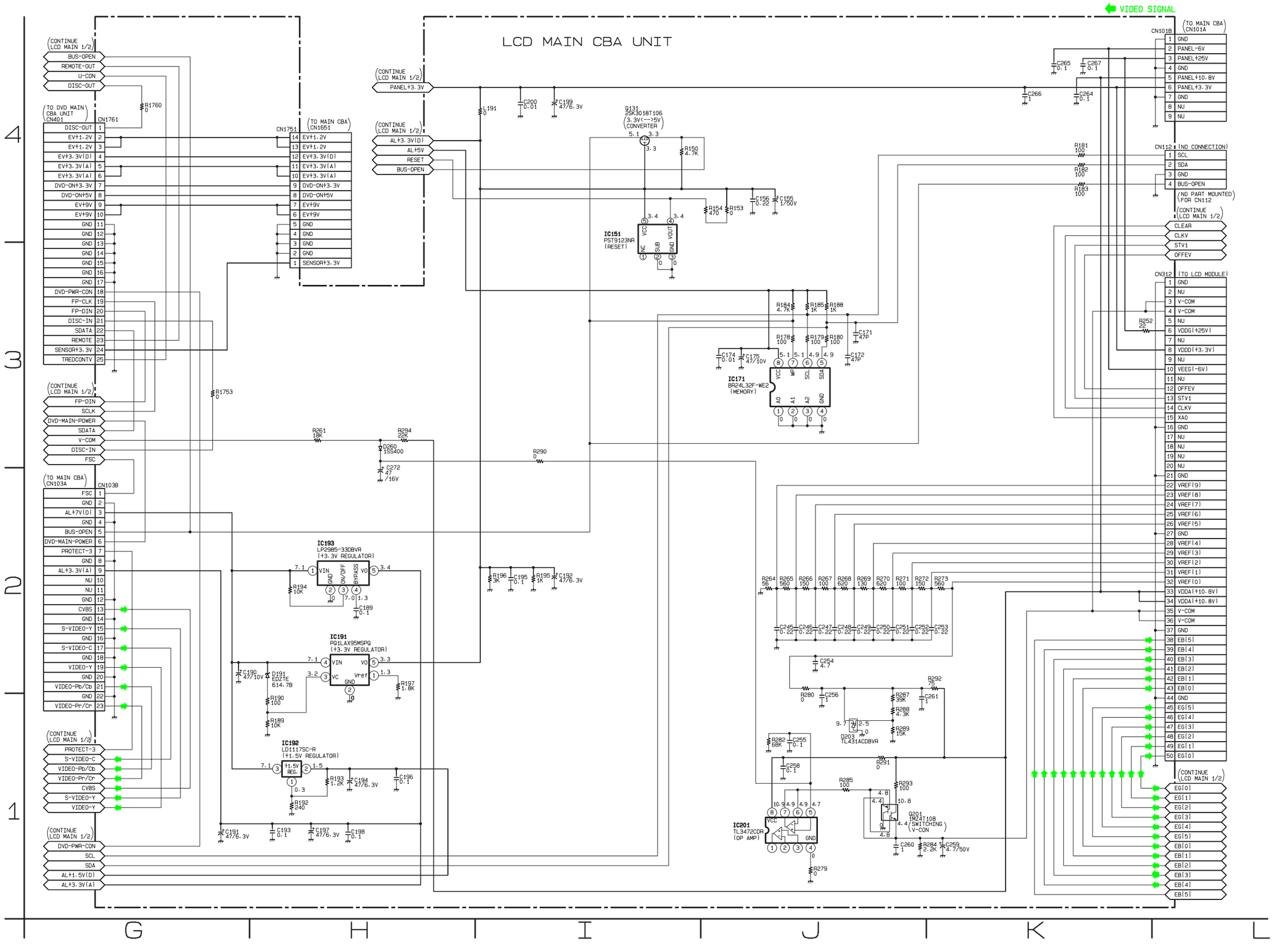
LCD Main 1/2 Schematic Diagram

LCD MAIN 1/2

Ref No.	Position
IC	
IC333	B-3
TRANSISTOR	
Q301	D-1
CONNECTORS	
CN102B	A-4
CN104	A-3
CN111	A-2
CN211	F-4
CN311	F-4



LCD Main 2/2 Schematic Diagram

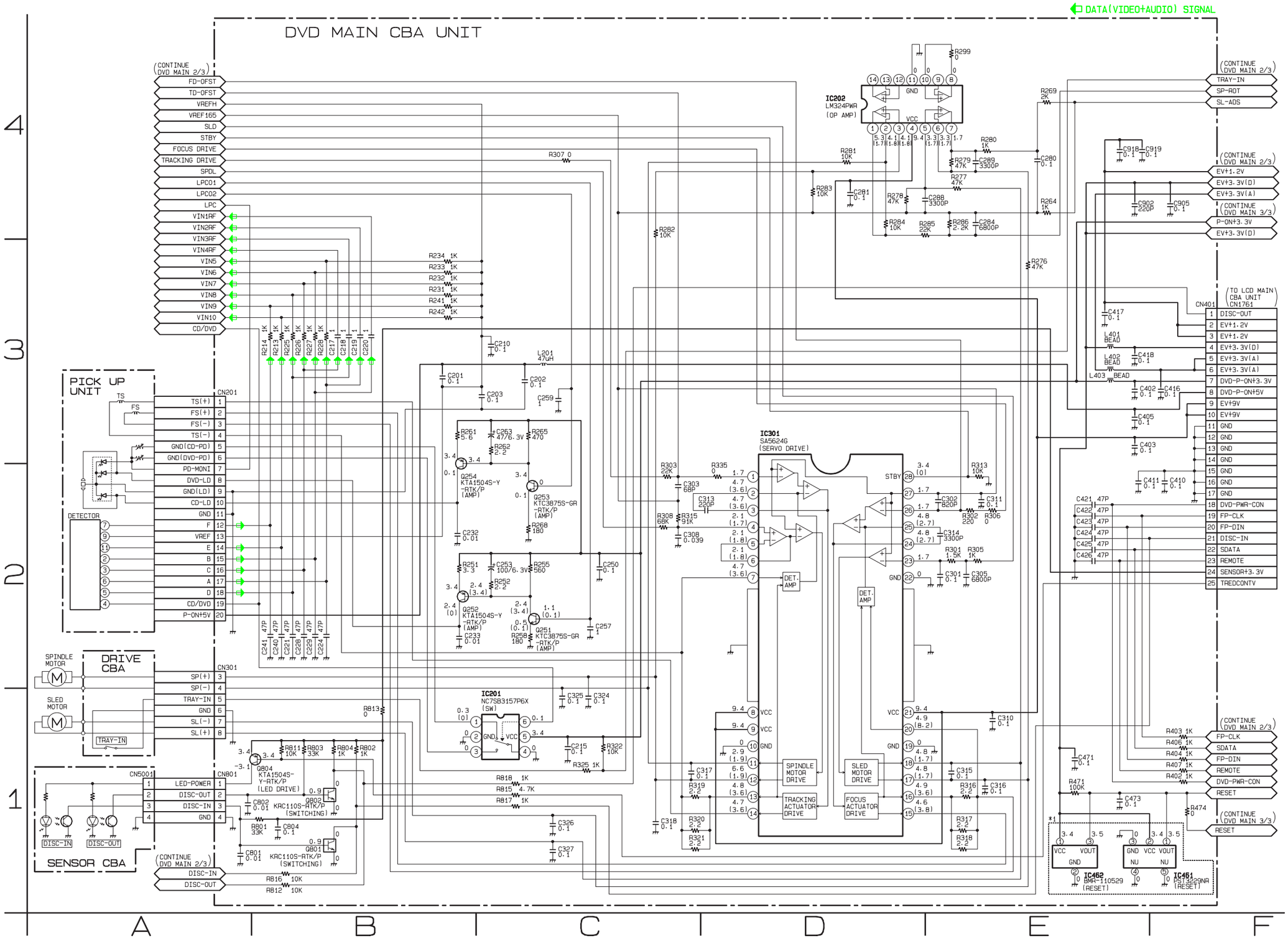


LCD MAIN 2/2

Ref No.	Position
ICS	
IC151	I-3
IC171	J-3
IC191	H-2
IC192	H-1
IC193	H-2
IC201	J-1
TRANSISTORS	
Q131	I-4
Q201	J-1
CONNECTORS	
CN101B	L-4
CN103B	G-2
CN112	L-4
CN312	L-3
CN1751	H-4
CN1761	G-4

DVD Main 1/3 Schematic Diagram

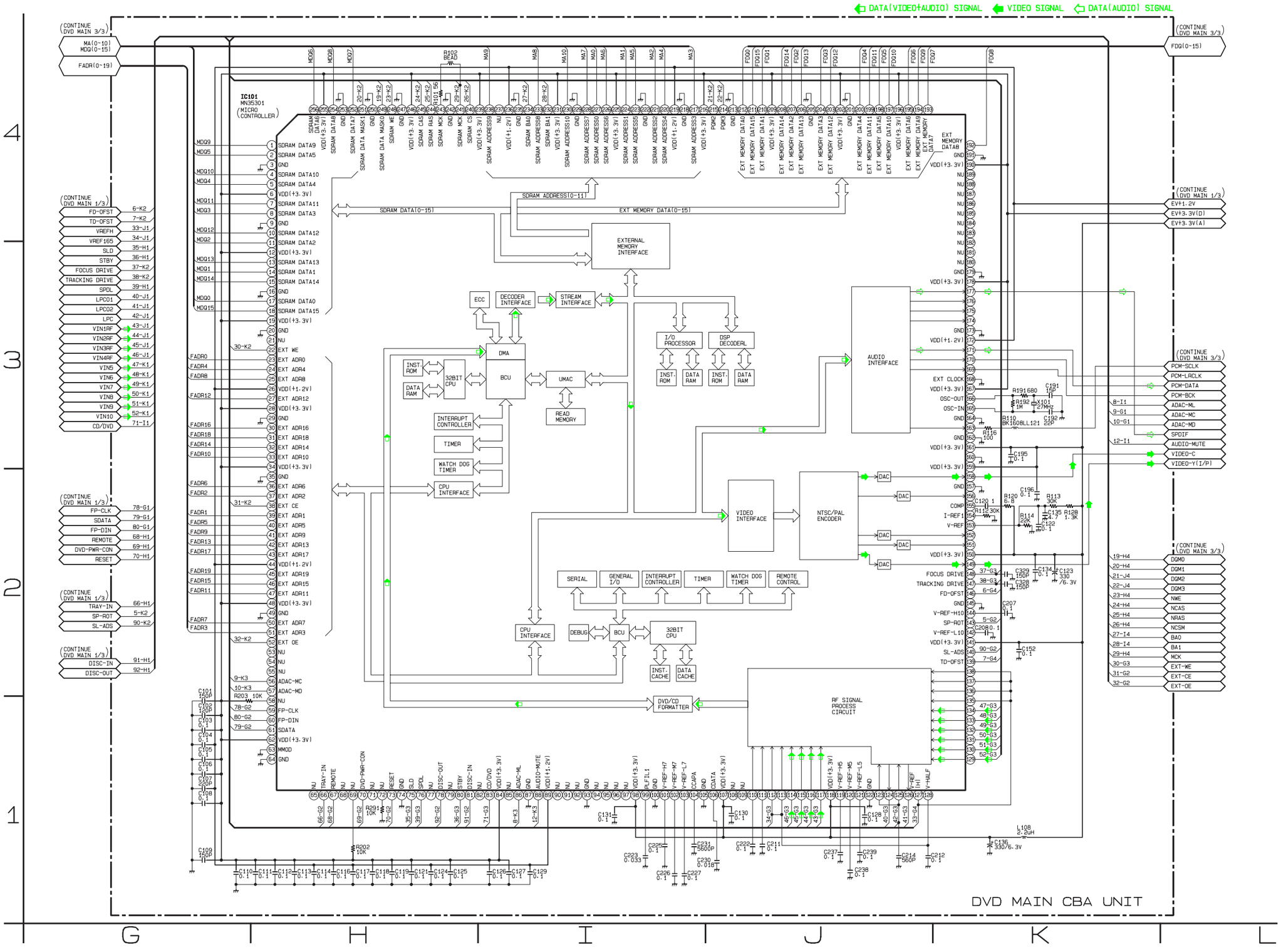
***1 NOTE:**
Either IC461 or IC462 is used for DVD MAIN CBA UNIT.



DVD MAIN 1/3

Ref No.	Position
ICS	
IC201	C-1
IC202	D-4
IC301	D-3
IC461	F-1
IC462	E-1
TRANSISTORS	
Q251	C-2
Q252	B-2
Q253	C-2
Q254	B-2
Q801	B-1
Q802	B-1
Q804	B-1
CONNECTORS	
CN201	A-3
CN301	A-2
CN401	F-3
CN801	A-1

DVD Main 2/3 Schematic Diagram



IC101 Voltage Chart

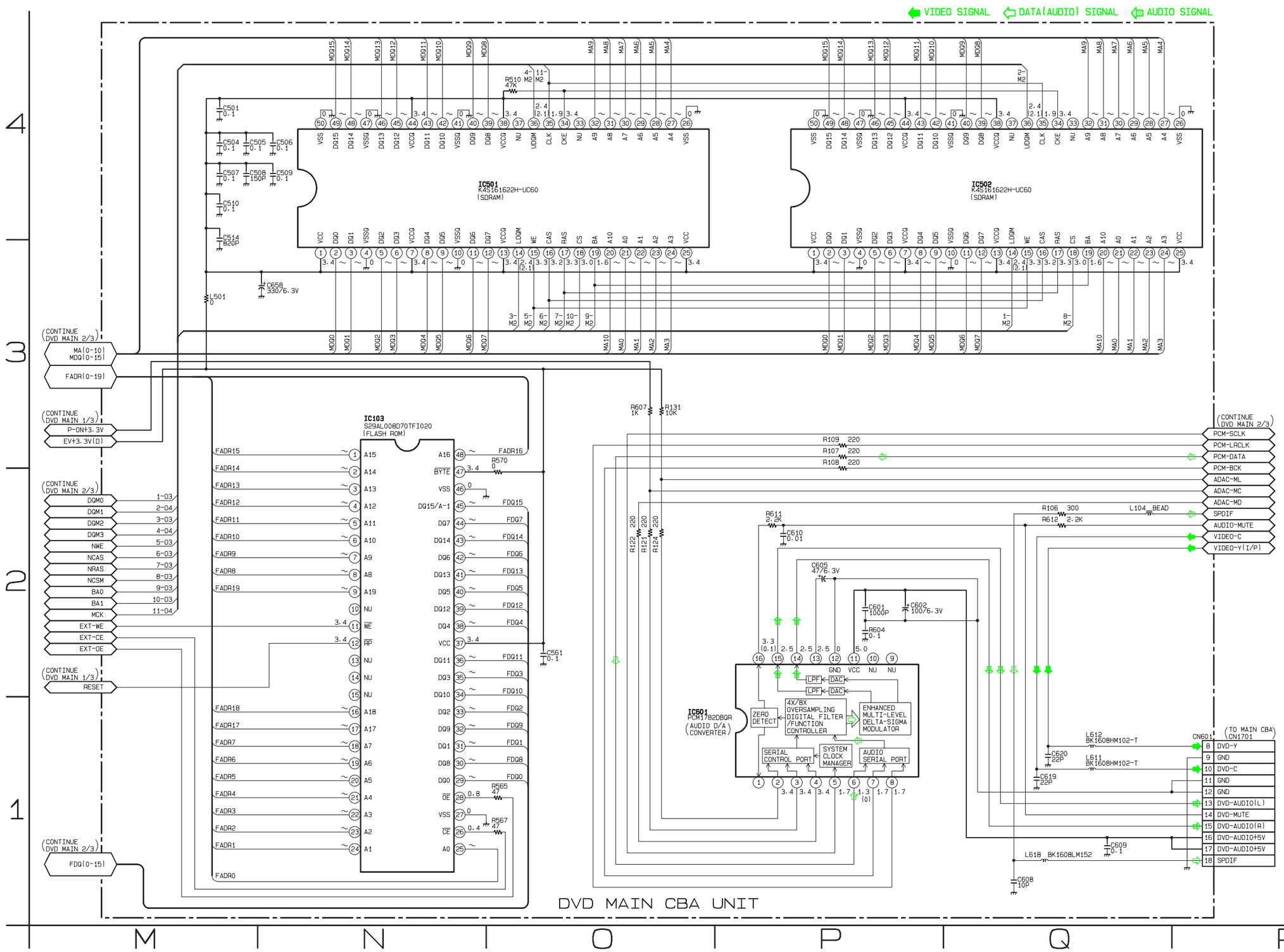
~ : Voltage is not consistent ----- : Not used Unit : Volts

PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP
1	~	~	33	~	~	65	-----	-----	97	-----	-----	129	2.3	2.3	161	3.4	3.4	193	~	~	225	3.4	3.4
2	~	~	34	3.4	3.4	66	3.4	3.5	98	3.4	3.4	130	2.3	2.3	162	0	0	194	~	~	226	~	~
3	0	0	35	0	0	67	3.2	3.2	99	0.9	0.8	131	2.3	2.3	163	1.8	1.8	195	~	~	227	~	~
4	~	~	36	~	~	68	-----	-----	100	0	0	132	2.4	2.3	164	0	0	196	3.4	3.4	228	~	~
5	~	~	37	~	~	69	3.4	3.4	101	2.4	2.4	133	2.4	2.4	165	1.7	1.8	197	~	~	229	0	0
6	3.4	3.4	38	0.4	0.3	70	3.4	3.4	102	2.2	2.2	134	2.4	2.4	166	1.7	1.7	198	~	~	230	~	~
7	~	~	39	~	~	71	-----	-----	103	1.9	1.9	135	2.3	2.3	167	3.4	3.4	199	~	~	231	3.4	3.4
8	~	~	40	~	~	72	1.4	2.7	104	0.4	0.3	136	2.3	2.3	168	0	0	200	~	~	232	1.3	1.6
9	0	0	41	~	~	73	3.5	3.5	105	0	0	137	2.3	2.3	169	1.8	1.8	201	0	0	233	~	~
10	~	~	42	~	~	74	0	0	106	1.7	1.7	138	2.3	2.3	170	1.7	1.7	202	3.4	3.4	234	1.9	2.3
11	~	~	43	~	~	75	1.7	1.8	107	3.4	3.4	139	1.7	1.7	171	1.3	0.1	203	~	~	235	0	0
12	3.4	3.4	44	1.3	1.3	76	2.3	1.8	108	-----	-----	140	1.7	1.7	172	1.3	1.3	204	~	~	236	1.3	1.3
13	~	~	45	~	~	77	-----	-----	109	-----	-----	141	3.4	3.4	173	0	0	205	0	0	237	~	~
14	~	~	46	~	~	78	0	0	110	1.9	1.9	142	1.3	1.3	174	-----	-----	206	~	~	238	~	~
15	~	~	47	~	~	79	-----	-----	111	1.9	1.9	143	2.1	1.7	175	-----	-----	207	~	~	239	3.4	3.4
16	0	0	48	3.4	3.4	80	3.4	0	112	1.7	1.7	144	2.2	2.2	176	-----	-----	208	~	~	240	3.4	3.3
17	~	~	49	0	0	81	0	0	113	1.7	1.7	145	0	0	177	1.8	1.7	209	3.4	3.4	241	1.9	1.9
18	~	~	50	~	~	82	-----	-----	114	1.7	1.7	146	1.7	1.7	178	3.4	3.5	210	~	~	242	0	0
19	3.4	3.4	51	~	~	83	0.1	0.1	115	1.7	1.7	147	1.8	1.7	179	0	0	211	~	~	243	1.9	1.9
20	0	0	52	0.8	0.8	84	3.4	3.4	116	1.7	1.7	148	1.7	1.7	180	-----	-----	212	~	~	244	3.4	3.3
21	-----	-----	53	-----	-----	85	-----	-----	117	1.7	1.7	149	0.6	0.5	181	-----	-----	213	0	0	245	3.4	3.4
22	3.4	3.4	54	-----	-----	86	3.6	3.4	118	3.4	3.4	150	3.4	3.4	182	-----	-----	214	2.5	3.0	246	3.4	3.4
23	~	~	55	-----	-----	87	0	0	119	2.0	2.0	151	-----	-----	183	-----	-----	215	2.5	3.0	247	0	0
24	~	~	56	3.4	3.4	88	3.5	0.1	120	1.7	1.7	152	-----	-----	184	-----	-----	216	3.4	3.4	248	3.3	3.4
25	~	~	57	3.5	3.5	89	1.3	1.3	121	1.5	1.5	153	1.4	1.3	185	-----	-----	217	~	~	249	3.2	3.0
26	1.3	1.3	58	3.4	3.4	90	-----	-----	122	0	0	154	1.4	1.3	186	-----	-----	218	0	0	250	0	0
27	~	~	59	3.4	3.4	91	-----	-----	123	0.3	0.1	155	2.4	2.4	187	-----	-----	219	1.3	1.3	251	3.2	3.0
28	3.4	3.4	60	3.4	3.4	92	-----	-----	124	1.1	0.1	156	-----	-----	188	-----	-----	220	~	~	252	~	~
29	0	0	61	3.5	3.5	93	0	0	125	0.3	0.1	157	0	0	189	-----	-----	221	~	~	253	0	0
30	~	~	62	3.4	3.4	94	-----	-----	126	0.1	0.1	158	0.9	0.9	190	3.4	3.5	222	0	0	254	~	~
31	~	~	63	0	0	95	-----	-----	127	2.3	2.3	159	3.4	3.4	191	0	0	223	~	~	255	3.4	3.4
32	~	~	64	0	0	96	-----	-----	128	1.7	1.7	160	0	0	192	~	~	224	~	~	256	~	~

DVD Main 3/3 Schematic Diagram

DVD MAIN 3/3

Ref No.	Position
ICS	
IC103	N-3
IC501	N-4
IC502	P-4
IC601	P-1
CONNECTOR	
CN601	R-1



Main CBA Top View

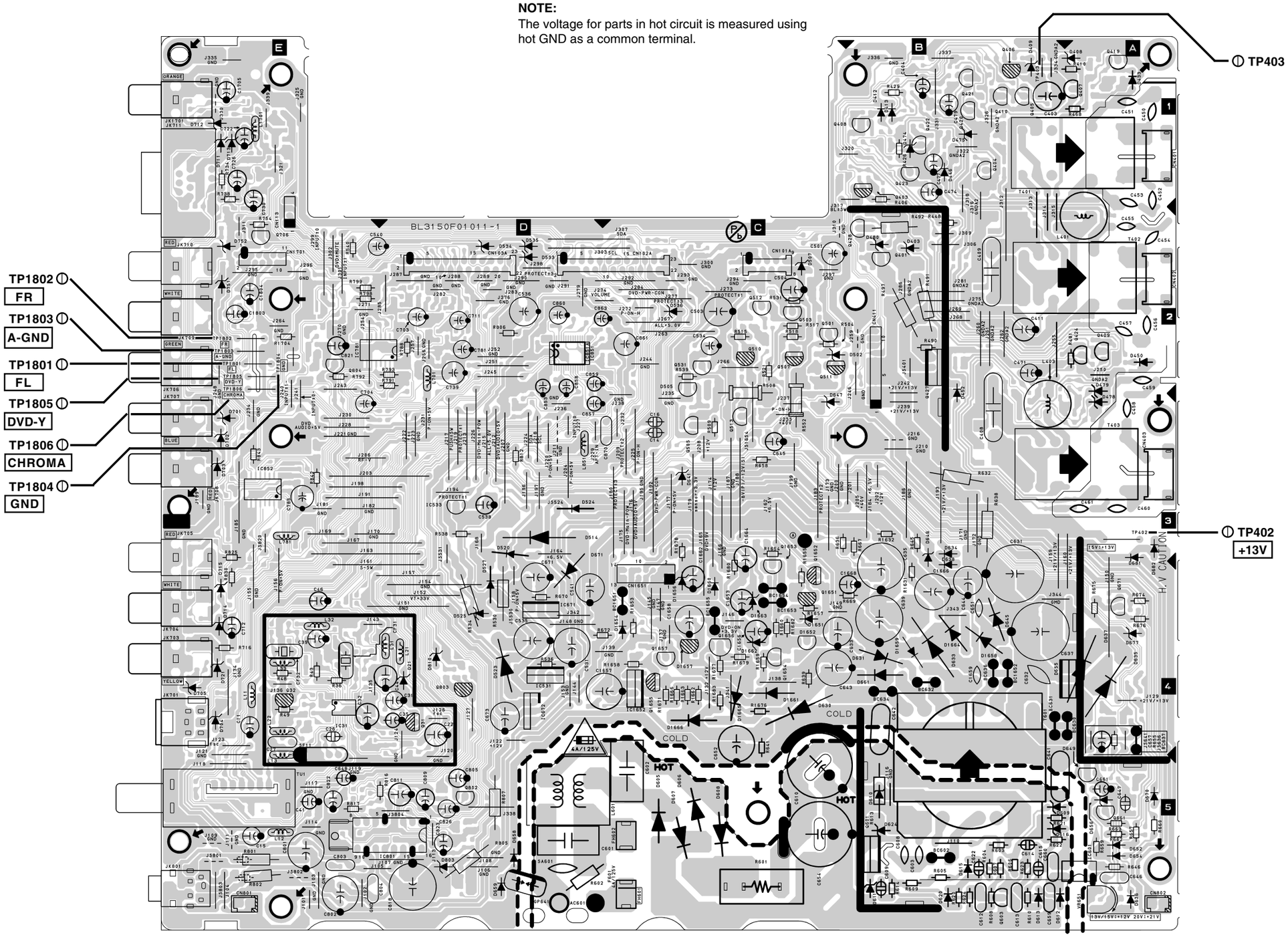
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

4A/125V

CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

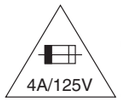
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly,when troubleshooting this type power supply circuit, a variable isolation transformer is required.

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



Main CBA Bottom View

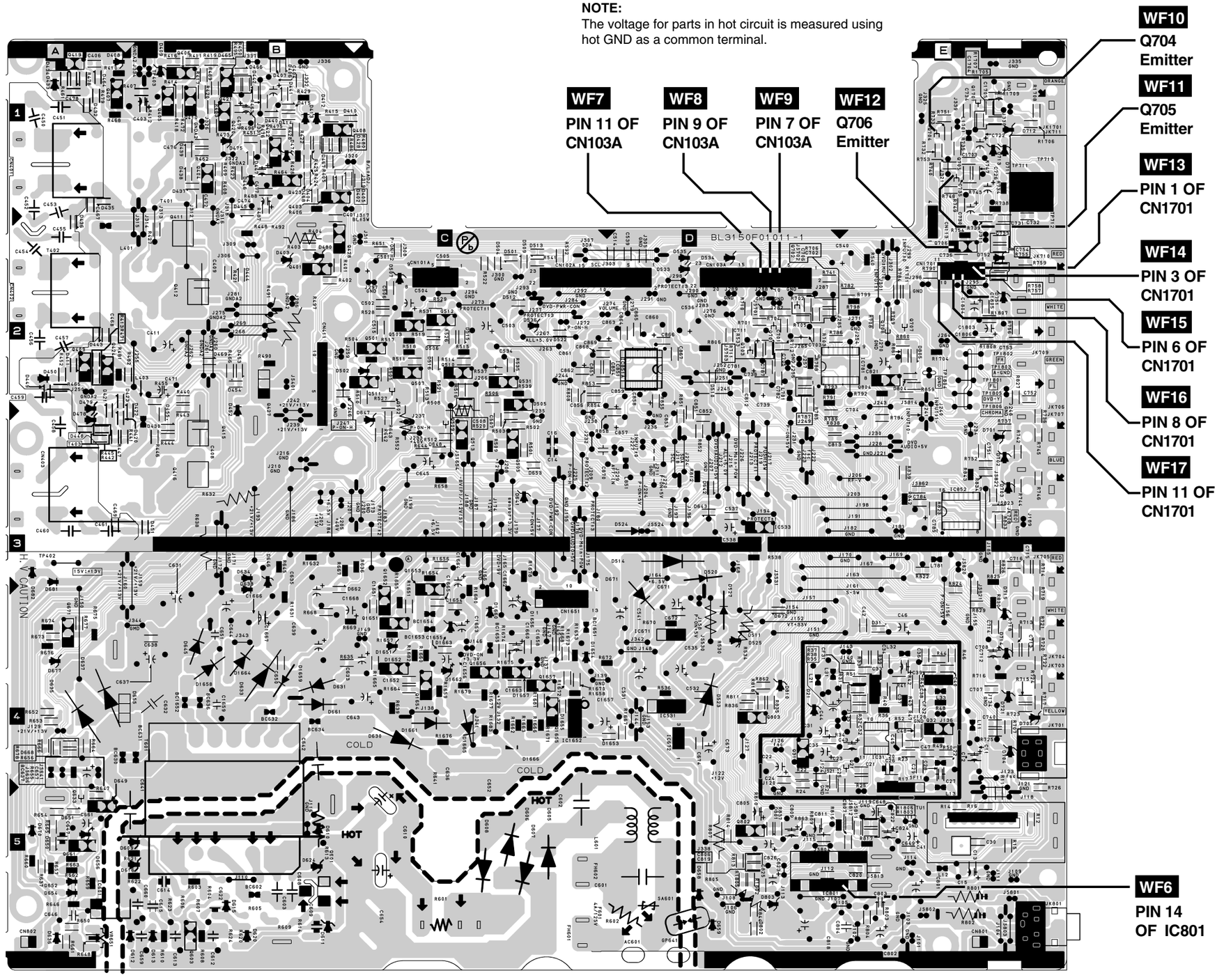
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly,when troubleshooting this type power supply circuit, a variable isolation transformer is required.

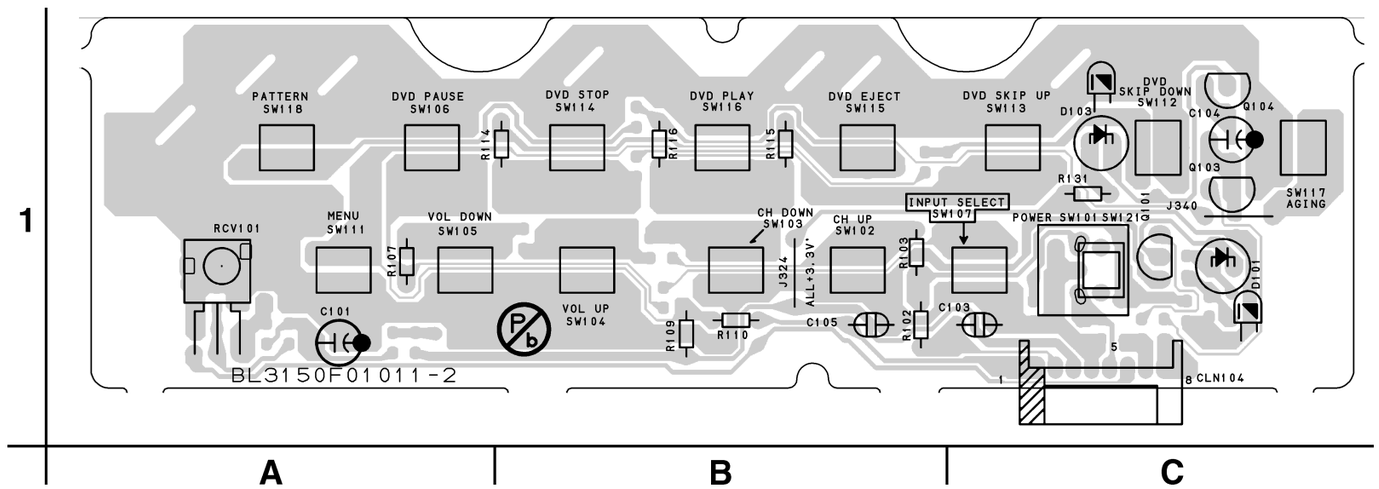
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



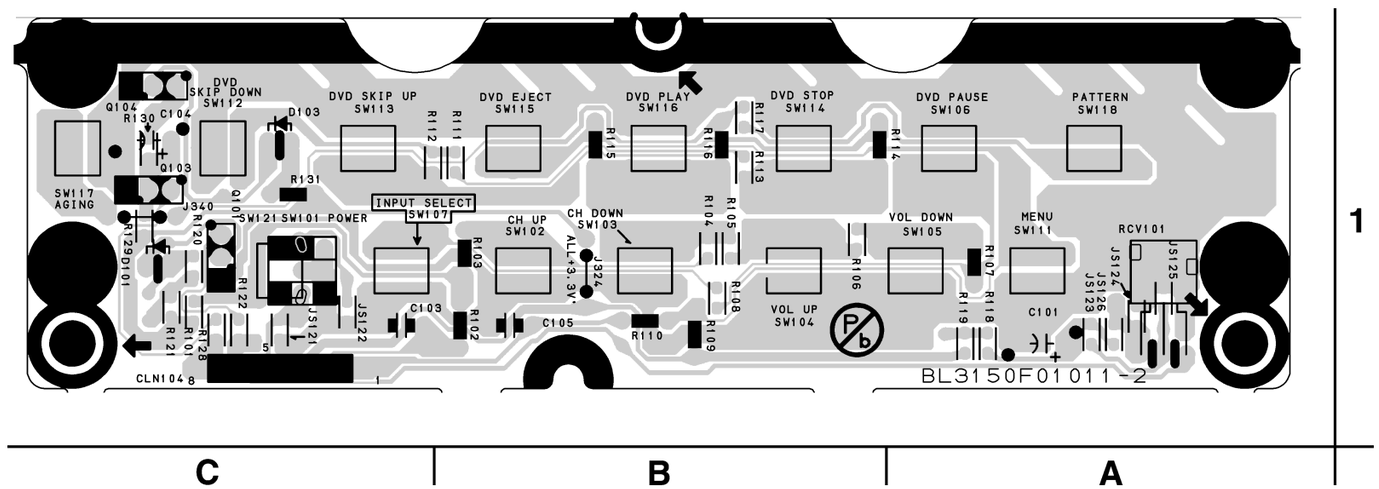
MAIN CBA

Ref No.	Position	Ref No.	Position
ICS		TRANSISTORS	
IC31	E-4	Q601	B-5
IC531	D-4	Q603	B-5
IC533	D-3	Q633	A-5
IC601	A-5	Q701	D-2
IC671	D-4	Q702	D-2
IC672	D-4	Q703	D-2
IC781	E-2	Q704	E-1
IC801	D-5	Q705	E-1
IC851	D-2	Q706	E-2
IC852	E-3	Q707	E-2
IC1652	C-4	Q708	E-2
TRANSISTORS		Q802	D-5
Q32	E-4	Q803	D-4
Q401	B-2	Q804	E-2
Q403	B-1	Q1651	C-4
Q404	B-1	Q1652	C-3
Q405	B-1	Q1653	C-3
Q406	B-1	Q1654	C-4
Q407	A-1	Q1655	C-4
Q408	C-1	Q1656	C-4
Q409	A-2	Q1657	C-4
Q410	B-1	Q1701	E-1
Q411	B-2	CONNECTORS	
Q412	B-2	CN101A	C-2
Q415	B-3	CN102A	C-2
Q416	B-3	CN103A	D-2
Q421	B-1	CN113	E-2
Q422	B-1	CN402	A-2
Q423	B-1	CN403	A-5
Q424	A-2	CN801	E-5
Q427	B-2	CN802	A-5
Q428	B-2	CN1701	E-2
Q501	C-2	TEST POINTS	
Q502	C-2	TP402	A-3
Q503	C-2	TP403	B-1
Q505	C-3	TP1801	E-2
Q509	C-3	TP1802	E-2
Q510	C-2	TP1803	E-2
Q511	C-2	TP1804	E-2
Q512	C-2	TP1805	E-2
Q513	C-3	TP1806	E-3
Q531	C-2		

Function CBA Top View



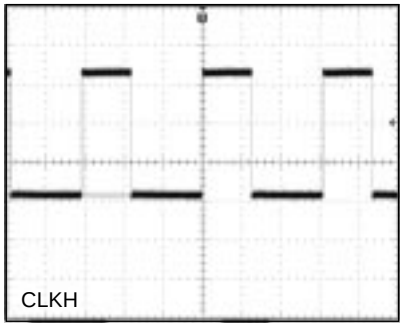
Function CBA Bottom View



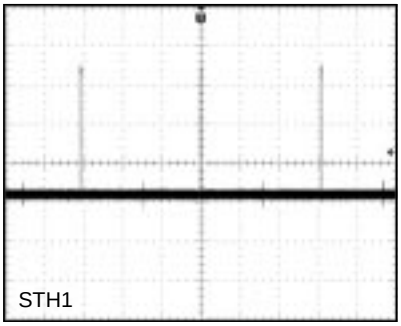
WAVEFORMS < LCD TV SECTION >

WF1 ~ WF12 = Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

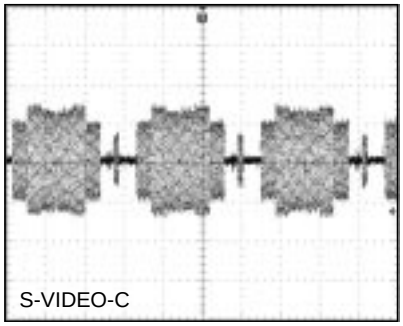
Input: NTSC Color Bar Signal (with 1kHz Audio Signal)



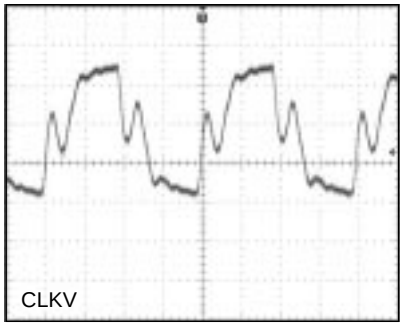
WF1 1DIV: 1.0V 10µs
R392



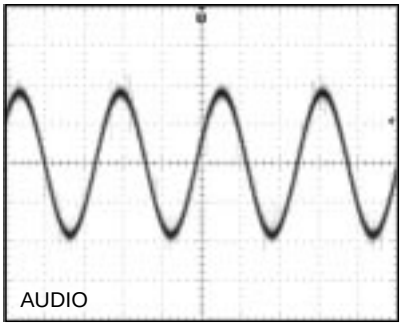
WF5 1DIV: 1.0V 10µs
R394



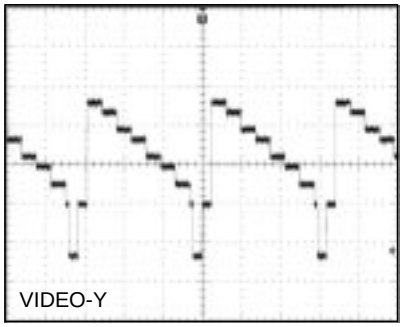
WF9 1DIV: 200mV 20µs
Pin 7 of CN103A



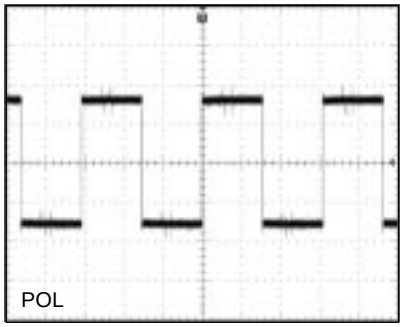
WF2 1DIV: 1.0V 20ns
R365



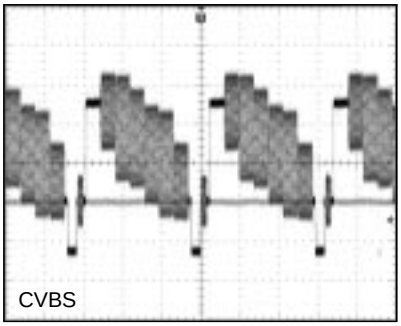
WF6 1DIV: 100mV 400 µs
Pin 14 of IC801



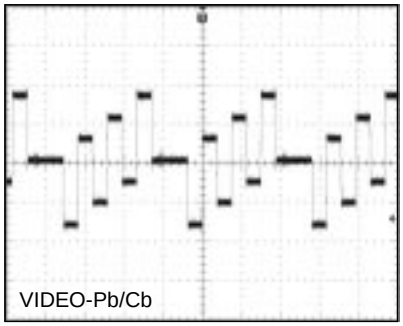
WF10 1DIV: 200mV 20µs
Q704 Emitter



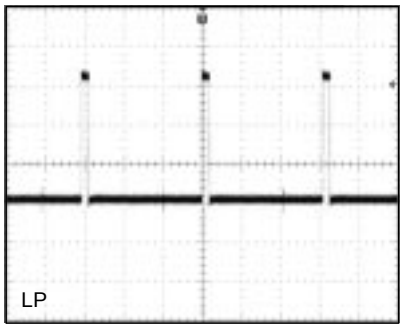
WF3 1DIV: 1.0V 20µs
R202



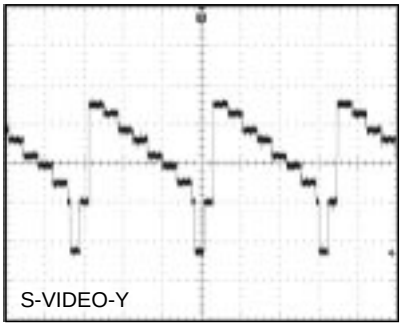
WF7 1DIV: 200mV 20µs
Pin 11 of CN103A



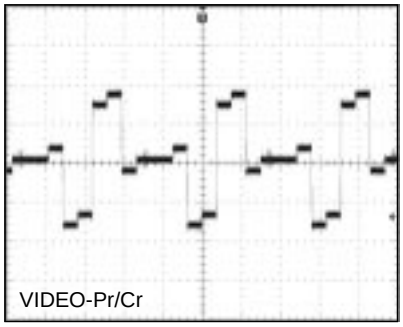
WF11 1DIV: 200mV 20µs
Q705 Emitter



WF4 1DIV: 1.0V 10µs
R201

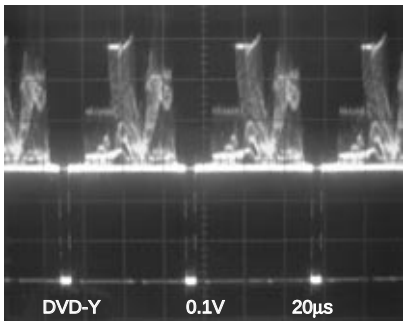


WF8 1DIV: 200mV 20µs
Pin 9 of CN103A

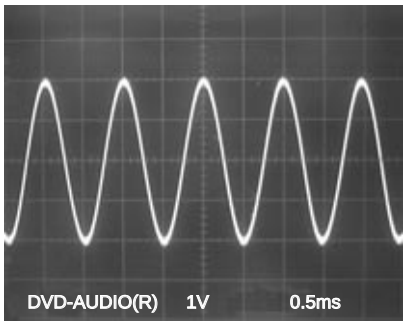


WF12 1DIV: 200mV 20µs
Q706 Emitter

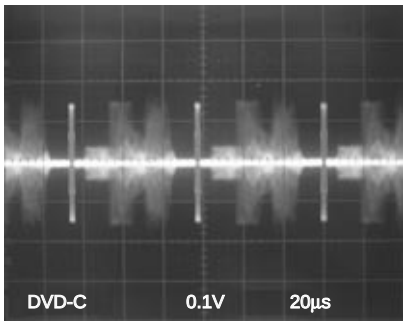
WAVEFORMS < DVD SECTION >



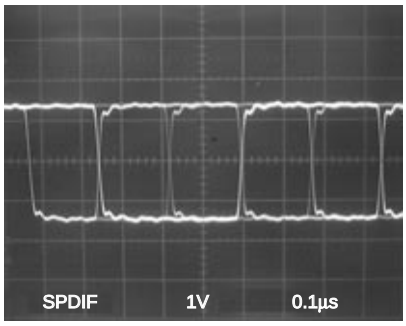
WF13 Pin 1 of CN1701



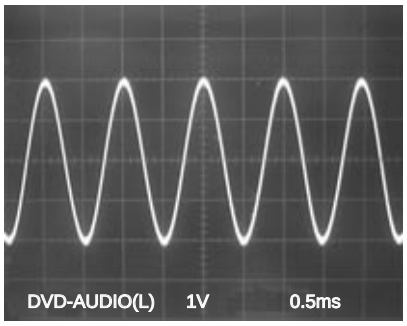
WF16 Pin 8 of CN1701



WF14 Pin 3 of CN1701



WF17 Pin 11 of CN1701



WF15 Pin 6 of CN1701

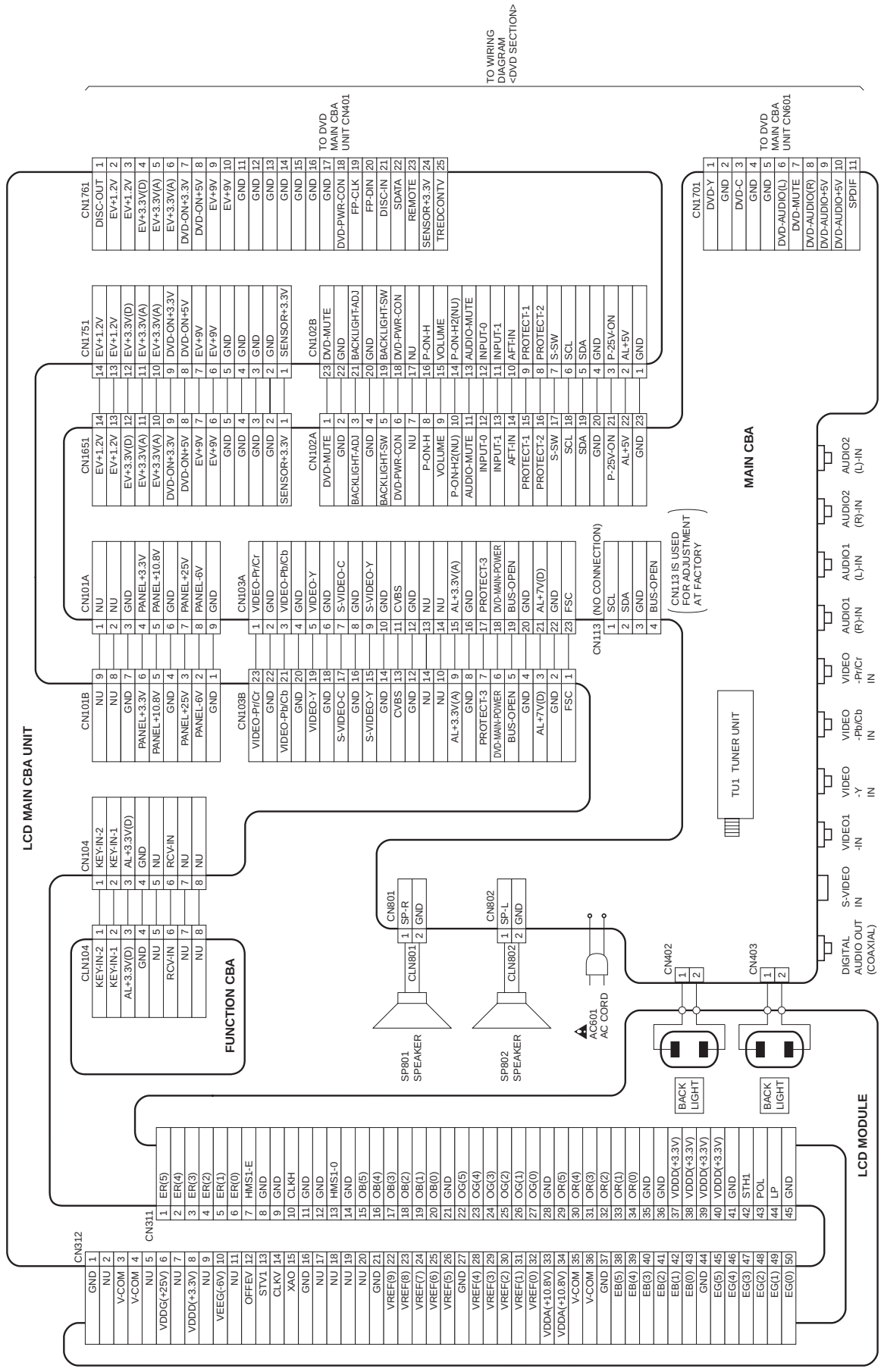
NOTE:

Input

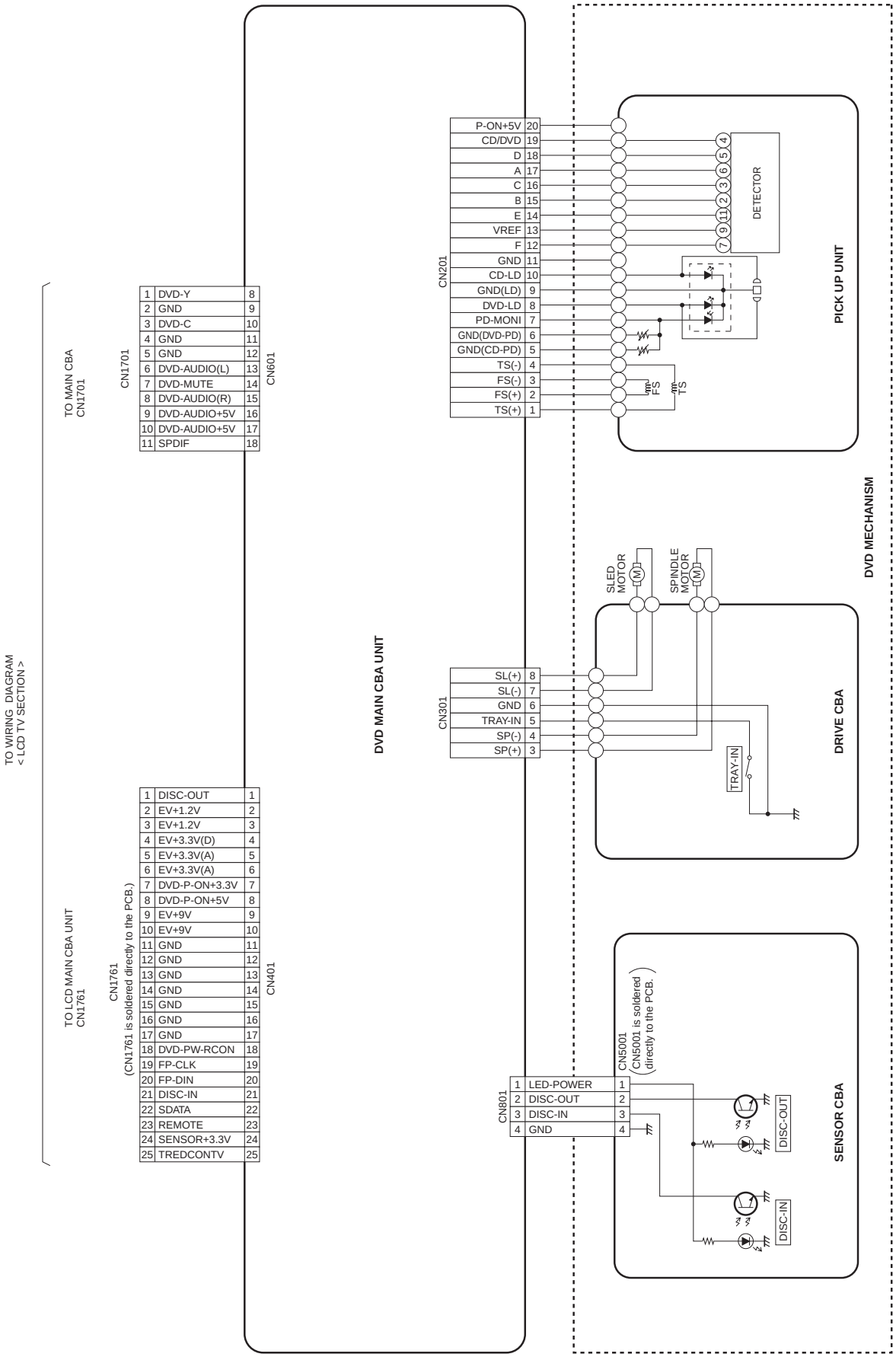
CD: 1kHz PLAY
(WF15~WF17)

DVD: POWER ON (STOP) MODE
(WF13~WF14)

WIRING DIAGRAM < LCD TV SECTION >

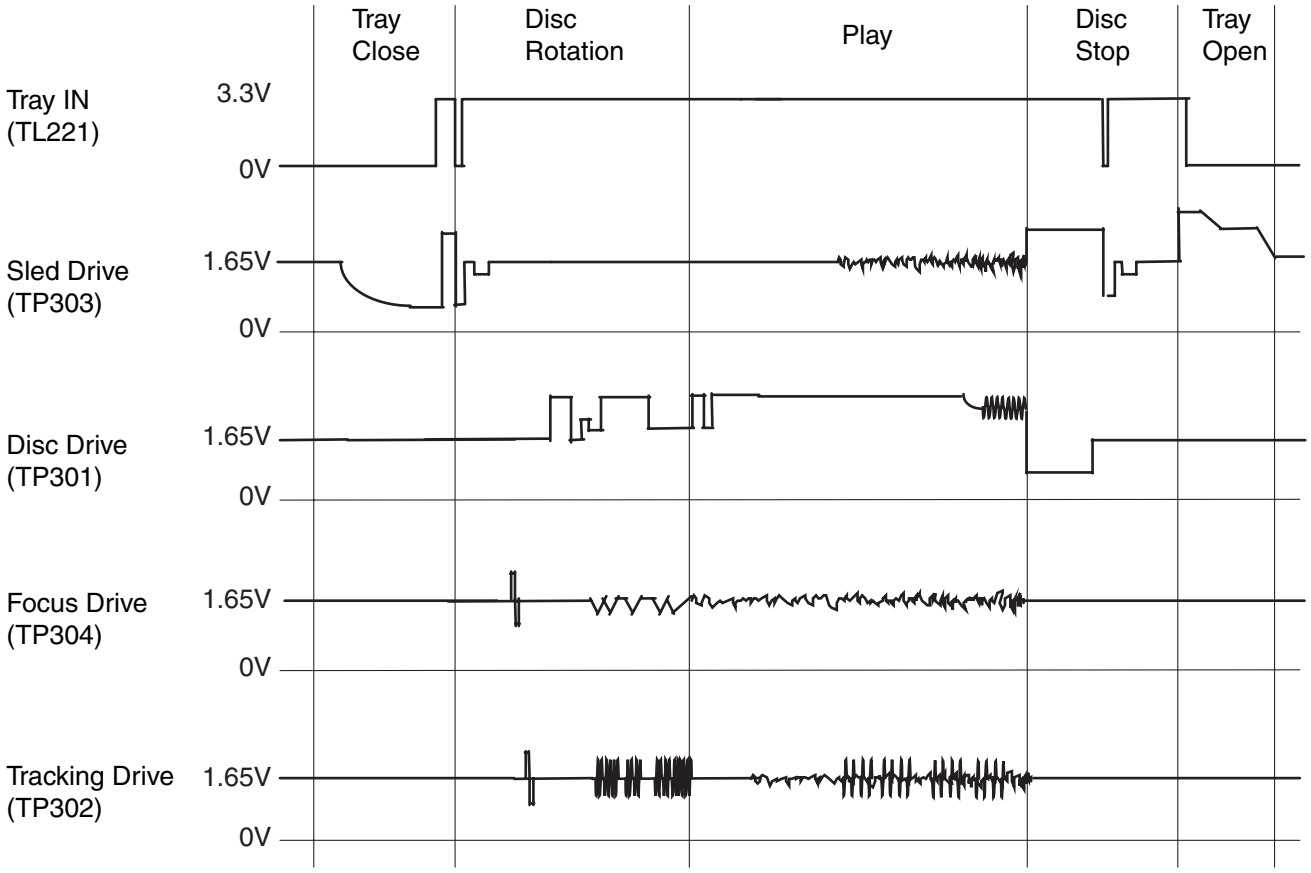


WIRING DIAGRAM < DVD SECTION >



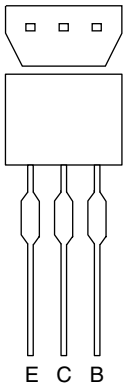
SYSTEM CONTROL TIMING CHARTS

Tray Close ~ Play / Play ~ Tray Open

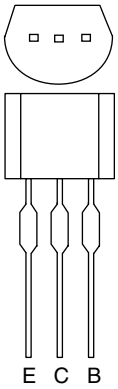


LEAD IDENTIFICATIONS

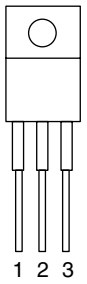
2SC2785(F)
BA1F4M-T



2SA1175(F)
2SC2120-O(TE2 F T)
2SD400(F)
2SC2120-Y(TPE2)

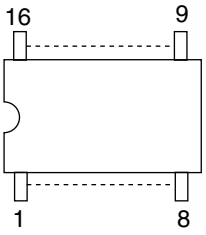


KIA7805API

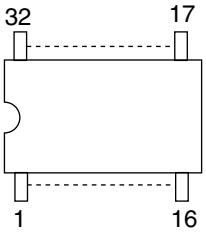


1: IN
2: GND
3: OUT

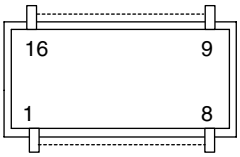
TC4053BF(EL.N)
TC4052BF(EL)



AN5832SA-E1



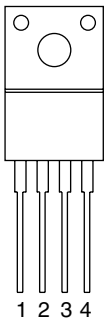
AN17812A



PS2501-1W

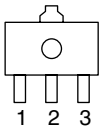
1: A
2: K
3: E
4: C

PQ070XF01SZH
KA78R08C

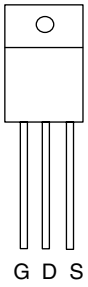


1: Vin
2: Vo
3: GND
4: Vc

NJM78L05

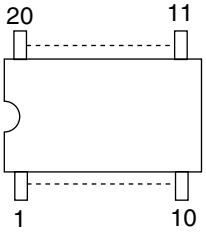


2SK3869(Q)

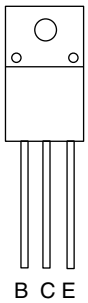


S: Souce
D: Drain
G: Gate

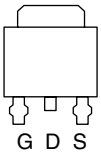
M61116FP TF0G



2SA1887

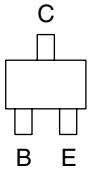


2SK4033



S: Souce
D: Drain
G: Gate

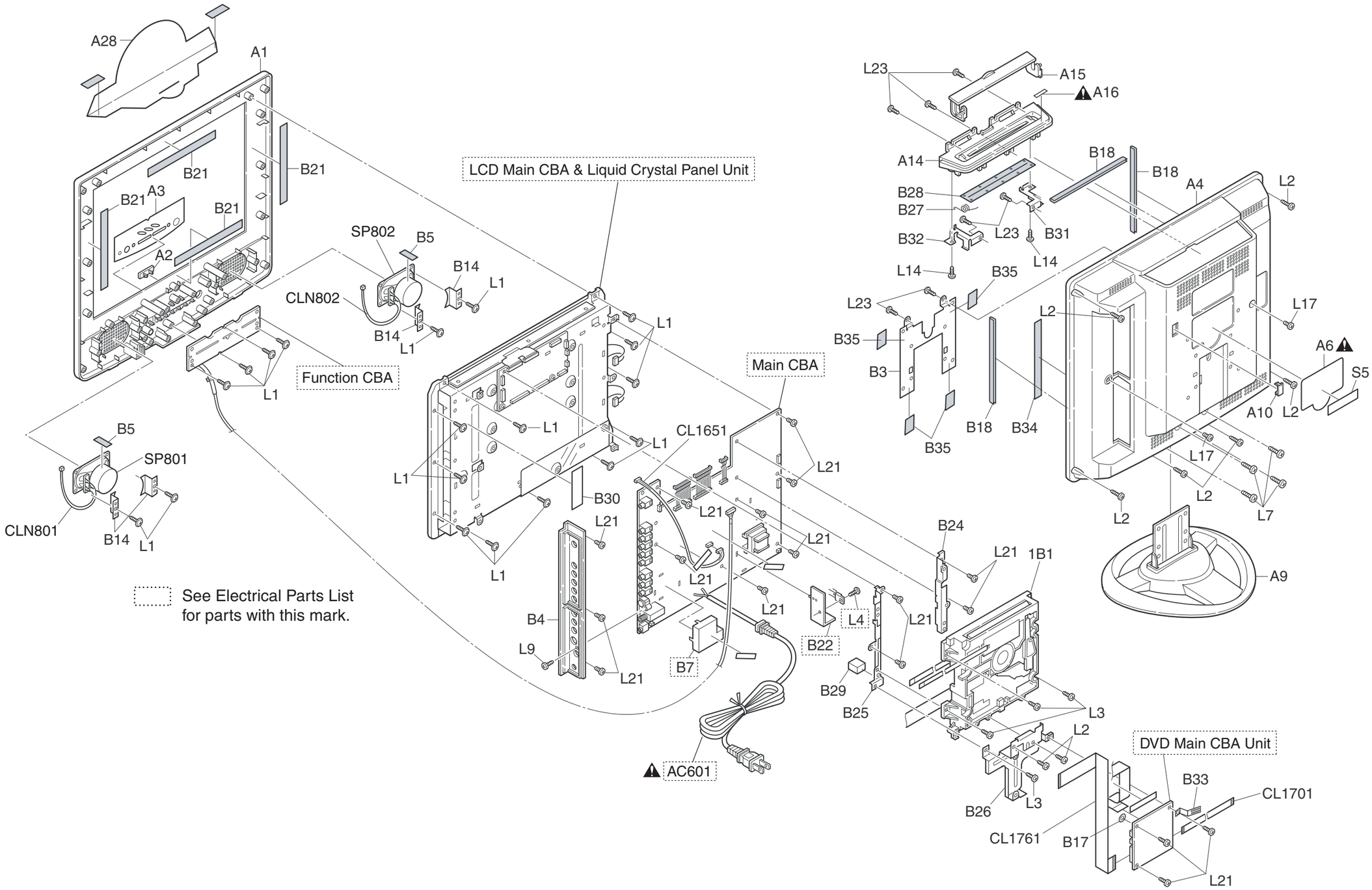
2SA1576A T106R
2SC4081 T106 Q



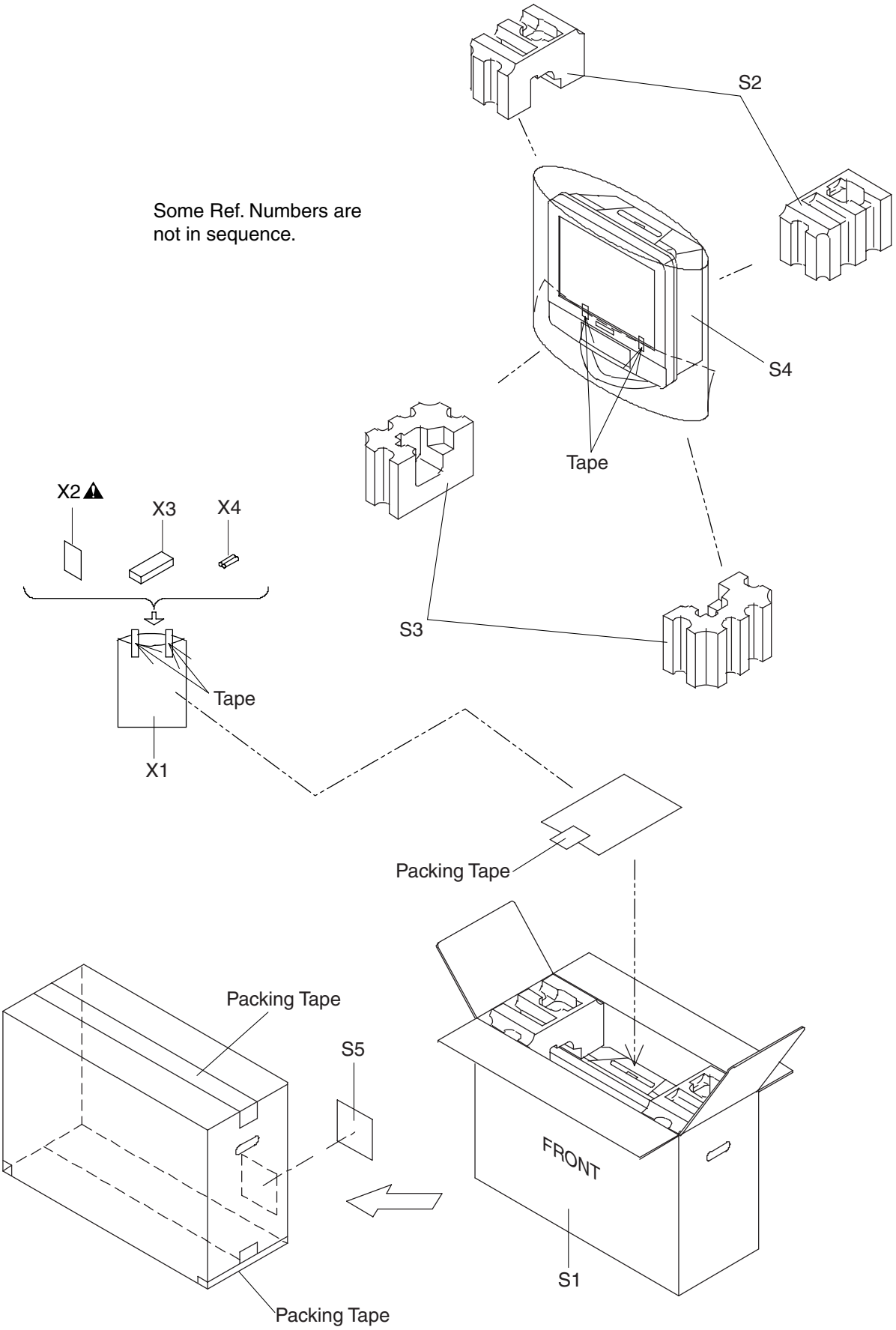
Note:
A: Anode
K: Cathode
E: Emitter
C: Collector
B: Base
R: Reference
S: Source
G: Gate
D: Drain

EXPLODED VIEWS

Cabinet



Packing


S2
Some Ref. Numbers are
not in sequence.
S4
Tape
X2 ⚠
X3
X4
S3
Tape
X1
Packing Tape
Packing Tape
S5
FRONT
S1
Packing Tape

MECHANICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTE: Parts that are not assigned part numbers (---------) are not available.

Ref. No.	Description	Part No.
A1	FRONT CABINET L3150UA	1EM220281
A2	BRAND BADGE L0200UA~SYLVANIA~	0EM409019
A3	CONTROL PLATE L3150UA	1EM320373
A4	REAR CABINET L3150UA	1EM120229A
A6⚠	RATING LABEL L3150UA	---------
A9	TILT STAND ASSEMBLY L3150UA	1EMN20040
A10	CONNECTER CAP L3150UA	1EM420954
A14	DVD BASE L3150UA	1EM421054A
A15	DVD DOOR L3150UA	1EM421055
A16⚠	CAUTION LABEL L3150UA	---------
A28	POP SHEET L3150UA	1EM320395
1B1	DVD MECHA (TV-SLOT IN) N7XT0JVM	N7XT0JVM
B3	STAND HOLDER L3201UB	1EM320164
B4	JACK HOLDER L3150UA	1EM320237
B5	CLOTH(10X30XT0.5) B5900UA	0EM404486
B14	SPEAKER HOLDER L0110UA	0EM407855C
B17	WASHER(D8) H1600UD	0VM408931
B18	CLOTH(10X190XT0.3) L0200UA	1EM420019
B21	CLOTH(10X180XT0.5) L0336JG	0EM408827
B24	15V DVD HOLDER(R) L3150UA	1EM320274
B25	15V DVD HOLDER(L) L3150UA	1EM320200
B26	LOADER PCB HOLDER L3150UA	1EM220261
B27	DVD DOOR SPRING L3150UA	1EM420018A
B28	FELT L3150UA	1EM420406A
B29	RUBBER CUSHION NE300UD	1EM421580
B30	LASER CAUTION LABEL L3150UA	---------
B31	BASE HOLDER(L) L3150UA	1EM421403
B32	BASE HOLDER(R) L3150UA	1EM421404
B33	LOADER EARTH PLATE L3150UA	1EM421402
B34	CLOTH 10X150XT1.0	1EM421092
B35	CLOTH(15X30XT1.0) B7507UH	0EM402452
B36	CLOTH(4X7X0.3T) TD250UA	0EM407578
CL1651	14P WIRE ASSEMBLY WX1L3150-005	WX1L3150-005
CL1701	11P FFC CABLE WX1L3150-001	WX1L3150-001
CL1761	25P FFC CABLE WX1L3150-002	WX1L3150-002
CLN801	SPEAKER WIRE ASSEMBLY WX1L3100-001	WX1L3100-001
CLN802	SPEAKER WIRE ASSEMBLY WX1L3100-001	WX1L3100-001
L1	SCREW P-TIGHT 3X12 WASHER HEAD+	GCMP3120
L2	SCREW P-TIGHT 3X12 BIND HEAD+ BLK	GBKP3120
L3	SCREW S-TIGHT M3X10 BIND HEAD+	GBMS3100
L7	SCREW P-TIGHT 4X14 BIND HEAD + BK.	GBKP4140
L9	SCREW P-TIGHT 3X10 BIND HEAD+	GBKP3100
L14	P-TIGHT SCREW 3X8 BIND +	GBMP3080
L17	SCREW S-TIGHT M3X8 BIND HEAD + BLK	GBKS3080
L21	SCREW S-TIGHT M3X8 BIND HEAD+	GBMS3080
L23	SCREW P-TIGHT M3X8 BIND HEAD+ BLK	GBKP3080
SP801	SPEAKER S0407F10	DSD0807XQ002
SP802	SPEAKER S0407F10	DSD0807XQ002

Ref. No.	Description	Part No.
	PACKING	
S1	CARTON L3150UA	1EM420937
S2	STYROFOAM TOP L3150UA	1EM020207
S3	STYROFOAM BOTTOM L3150UA	1EM020209
S4	SET BAG L0110UA	0EM301908
S5	SERIAL NO. LABEL L9750UA	---------
	ACCESSORIES	
X1	BAG POLYETHYLENE 235X365XT0.03	0EM408420
X2⚠	OWNERS MANUAL L3150UA	1EMN20335
X3	REMOTE CONTROL 192/ECNLC3D1/ NE240UD	NE240UD
X4	DRY BATTERY R6P/2S	XB0M451T0001

ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTES:

1. Parts that are not assigned part numbers (---------) are not available.
2. Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25% D.....±0.5% F.....±1%

G.....±2% J.....±5% K.....±10%

M.....±20% N.....±30% Z.....+80/-20%

DVD MAIN CBA UNIT

Ref. No.	Description	Part No.
	DVD MAIN CBA UNIT	N7XT0JUP

LCD MAIN CBA & LIQUID CRYSTAL PANEL UNIT

Ref. No.	Description	Part No.
	LCD MAIN CBA & LIQUID CRYSTAL PANEL UNIT	1FSA10056

MMA CBA

Ref. No.	Description	Part No.
	MMA CBA Consists of the following:	1ESA10867
	MAIN CBA FUNCTION CBA	---------- ----------

MAIN CBA

Ref. No.	Description	Part No.
	MAIN CBA Consists of the following:	----------
	CAPACITORS	
C11	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C12	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C13	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C15	ELECTROLYTIC CAP. 1μF/ 50V M	CE1JMASDL1R0
C21	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C22	ELECTROLYTIC CAP. 100μF/ 10V M	CE1AMASDL101
C23	CHIP CERAMIC CAP.(1608) CH J 1000pF/ 50V	CHD1JJ3CH102
C24	CHIP CERAMIC CAP.(1608) CH J 1000pF/ 50V	CHD1JJ3CH102
C25	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C26	PCB JUMPER D0.6-P5.0	JW5.0T
C27	FILM CAP.(P) 0.018μF/ 50V J	CA1J183MS029
C28	CHIP CERAMIC CAP.(1608) B K 0.047μF/ 50V	CHD1JK30B473
C29	CHIP CERAMIC CAP. CH D 3pF/ 50V	CHD1JD3CH3R0
C30	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C31	PCB JUMPER D0.6-P5.0	JW5.0T
C32	ELECTROLYTIC CAP. 100μF/ 10V M	CE1AMASDL101
C34	CHIP CERAMIC CAP.(1608) CH J 47pF/ 50V	CHD1JJ3CH470
C35	ELECTROLYTIC CAP. 1μF/ 50V M	CE1JMASDL1R0
C36	CHIP CERAMIC CAP.(1608) CH J 47pF/ 50V	CHD1JJ3CH470
C37	CHIP CERAMIC CAP. CH J 680pF/ 50V	CHD1JJ3CH681
C39	ELECTROLYTIC CAP. 0.47μF/ 50V M	CE1JMASDLR47
C41	ELECTROLYTIC CAP. 4.7μF/ 50V M	CE1JMASDL4R7
C42	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C43	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C44	ELECTROLYTIC CAP. 100μF/ 10V M	CE1AMASDL101
C45	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C46	ELECTROLYTIC CAP. 47μF/ 16V M	CE1CMASDL470
C401	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C403	ELECTROLYTIC CAP. 220μF/ 16V M	CE1CMASDL221
C404	ELECTROLYTIC CAP. 2.2μF/ 50V M	CE1JMASDL2R2
C406	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C408	PP CAP. 0.13μF/ 250V J	CT2E134MS041
C409	PP CAP. 0.13μF/ 250V J	CT2E134MS041
C411	ELECTROLYTIC CAP. 100μF/ 16V M	CE1CMASDL101
C454	CERAMIC CAP. SL D 10pF/ 3KV	CCD3FDASL100
C455	CERAMIC CAP. SL D 10pF/ 3KV	CCD3FDASL100
C456	CERAMIC CAP. SL D 10pF/ 3KV	CCD3FDASL100
C457	CERAMIC CAP. SL D 10pF/ 3KV	CCD3FDASL100
C458	CERAMIC CAP. SL D 10pF/ 3KV	CCD3FDASL100
C459	CERAMIC CAP. SL D 10pF/ 3KV	CCD3FDASL100
C460	CERAMIC CAP. SL D 10pF/ 3KV	CCD3FDASL100
C461	CERAMIC CAP. SL D 10pF/ 3KV	CCD3FDASL100
C468	CHIP CERAMIC CAP.(1608) B K 0.047μF/ 50V	CHD1JK30B473
C469	CHIP CERAMIC CAP.(1608) B K 0.047μF/ 50V	CHD1JK30B473
C471	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C472	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C474	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C477	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C479	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C501	ELECTROLYTIC CAP. 22μF/ 50V M H7	CE1JMAVSL220
C502	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C503	ELECTROLYTIC CAP. 220μF/ 16V M	CE1CMASDL221
C504	ELECTROLYTIC CAP. 100μF/ 10V M	CE1AMASDL101
C505	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C506	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C507	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C508	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C515	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C531	ELECTROLYTIC CAP. 330μF/ 50V M	CE1JMZPDL331
C532	CHIP CERAMIC CAP.(1608) B K 0.22μF/ 25V	CHD1EK30B224
C534	ELECTROLYTIC CAP. 47μF/ 16V M H7	CE1CMAVSL470
C535	ELECTROLYTIC CAP. 470μF/ 16V M	CE1CMASDL471
C537	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C538	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C539	CHIP CERAMIC CAP.(1608) CH J 100pF/ 50V	CHD1JJ3CH101
C601⚠	METALLIZED FILM CAP. 0.22μF/ 250V	CT2E224MS037
C608	CERAMIC CAP. B K 1000pF/ 2KV	CCD3DKP0B102
C610⚠	ELECTROLYTIC CAP. 100μF/ 200V M	CE2DMZPDL101
C612	FILM CAP.(P) 0.01μF/ 50V J	CMA1JJS00103
C613	FILM CAP.(P) 0.056μF/ 50V J	CMA1JJS00563
C614	PCB JUMPER D0.6-P5.0	JW5.0T
C615	PCB JUMPER D0.6-P5.0	JW5.0T
C631⚠	ELECTROLYTIC CAP. 2200μF/ 25V M	CE1EMZPDL222
C633⚠	ELECTROLYTIC CAP. 220μF/ 16V M	CE1CMASDL221
C635⚠	ELECTROLYTIC CAP. 470μF/ 10V M	CE1AMASTL471
C636⚠	CHIP CERAMIC CAP.(1608) B K 0.1μF/ 50V	CHD1JK30B104

Ref. No.	Description	Part No.
C637⚠	ELECTROLYTIC CAP. 2200μF/ 25V M	CE1EMZPDL222
C638	CHIP CERAMIC CAP.(1608) B K 0.1μF/ 50V	CHD1JK30B104
C639⚠	ELECTROLYTIC CAP. 470μF/ 10V M	CE1AMASTL471
C641⚠	SAFETY CAP. 4700pF/ 250V KX	CA2E472MR050
C643	ELECTROLYTIC CAP. 1000μF/ 10V M	CE1AMZPDL102
C644⚠	ELECTROLYTIC CAP. 100μF/ 50V M	CE1JMASTL101
C645⚠	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C646	FILM CAP.(P) 0.001μF/ 50V J	CMA1JJS00102
C648⚠	ELECTROLYTIC CAP. 1μF/ 50V M	CE1JMASDL1R0
C649	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C650	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C652⚠	ELECTROLYTIC CAP. 470μF/ 25V M	CE1EMZPDL471
C654⚠	ELECTROLYTIC CAP. 100μF/ 200V M	CE2DMZPDL101
C657	ELECTROLYTIC CAP. 47μF/ 16V M	CE1CMASDL470
C659	FILM CAP.(P) 0.022μF/ 50V J	CMA1JJS00223
C660	FILM CAP.(P) 0.0068μF/ 50V J	CMA1JJS00682
C671	ELECTROLYTIC CAP. 470μF/ 10V M	CE1AMASTL471
C672	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C673	ELECTROLYTIC CAP. 470μF/ 10V M	CE1AMASTL471
C674	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C701	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C702	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C703	ELECTROLYTIC CAP. 47μF/ 16V M H7	CE1CMAVSL470
C704	ELECTROLYTIC CAP. 47μF/ 16V M H7	CE1CMAVSL470
C705	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C706	CHIP CERAMIC CAP.(1608) CH J 1000pF/ 50V	CHD1JJ3CH102
C707	CHIP CERAMIC CAP.(1608) CH J 1000pF/ 50V	CHD1JJ3CH102
C708	CHIP CERAMIC CAP.(1608) CH J 100pF/ 50V	CHD1JJ3CH101
C711	ELECTROLYTIC CAP. 47μF/ 16V M H7	CE1CMAVSL470
C712	ELECTROLYTIC CAP. 47μF/ 16V M	CE1CMASDL470
C713	CHIP CERAMIC CAP.(1608) B K 3300pF/ 50V	CHD1JK30B332
C714	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105
C715	CHIP CERAMIC CAP.(1608) B K 3300pF/ 50V	CHD1JK30B332
C716	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105
C722	ELECTROLYTIC CAP. 47μF/ 16V M	CE1CMASDL470
C726	ELECTROLYTIC CAP. 47μF/ 16V M	CE1CMASDL470
C730	ELECTROLYTIC CAP. 47μF/ 16V M	CE1CMASDL470
C734	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C735	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C736	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C738	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C739	ELECTROLYTIC CAP. 100μF/ 10V M H7	CE1AMAVSL101
C740	CHIP CERAMIC CAP.(1608) CH J 100pF/ 50V	CHD1JJ3CH101
C751	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105
C752	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105
C753	CHIP CERAMIC CAP.(1608) B K 3300pF/ 50V	CHD1JK30B332
C754	CHIP CERAMIC CAP.(1608) B K 3300pF/ 50V	CHD1JK30B332
C781	ELECTROLYTIC CAP. 10μF/ 50V M H7	CE1JMAVSL100
C782	CHIP CERAMIC CAP.(1608) B K 0.1μF/ 50V	CHD1JK30B104
C784	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C785	ELECTROLYTIC CAP. 100μF/ 10V M H7	CE1AMAVSL101
C787	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C801	ELECTROLYTIC CAP. 220μF/ 16V M	CE1CMASDL221
C802	ELECTROLYTIC CAP. 220μF/ 16V M	CE1CMASDL221
C803	FILM CAP.(P) 0.1μF/ 50V J	CMA1JJS00104
C804	FILM CAP.(P) 0.1μF/ 50V J	CMA1JJS00104
C805	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C806	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105
C807	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105
C809	ELECTROLYTIC CAP. 2.2μF/ 50V M	CE1JMASDL2R2
C811	ELECTROLYTIC CAP. 100μF/ 16V M	CE1CMASDL101
C812	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105
C813	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105

Ref. No.	Description	Part No.
C818	ELECTROLYTIC CAP. 2200μF/ 16V M	CE1CMZPDL222
C819	CHIP CERAMIC CAP. B K 2200pF/ 50V	CHD1JK30B222
C820	CHIP CERAMIC CAP. B K 2200pF/ 50V	CHD1JK30B222
C822	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C823	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C824	CHIP CERAMIC CAP.(1608) B K 5600pF/ 50V	CHD1JK30B562
C825	CHIP CERAMIC CAP.(1608) B K 5600pF/ 50V	CHD1JK30B562
C826	ELECTROLYTIC CAP. 1μF/ 50V M	CE1JMASDL1R0
C851	CHIP CERAMIC CAP.(1608) CH J 100pF/ 50V	CHD1JJ3CH101
C852	CHIP CERAMIC CAP.(1608) CH J 100pF/ 50V	CHD1JJ3CH101
C853	ELECTROLYTIC CAP. 2.2μF/ 50V M H7	CE1JMAVSL2R2
C854	CHIP CERAMIC CAP.(1608) B K 0.1μF/ 50V	CHD1JK30B104
C855	CHIP CERAMIC CAP.(1608) B K 0.1μF/ 50V	CHD1JK30B104
C856	CHIP CERAMIC CAP.(1608) B K 0.33μF/ 10V	CHD1AK30B334
C857	ELECTROLYTIC CAP. 2.2μF/ 50V M H7	CE1JMAVSL2R2
C858	ELECTROLYTIC CAP. 2.2μF/ 50V M H7	CE1JMAVSL2R2
C859	ELECTROLYTIC CAP. 4.7μF/ 50V M H7	CE1JMAVSL4R7
C860	ELECTROLYTIC CAP. 10μF/ 50V M H7	CE1JMAVSL100
C861	ELECTROLYTIC CAP. 100μF/ 10V M H7	CE1AMAVSL101
C862	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C863	ELECTROLYTIC CAP. 2.2μF/ 50V M H7	CE1JMAVSL2R2
C864	CHIP CERAMIC CAP.(1608) B K 0.022μF/ 50V	CHD1JK30B223
C865	CHIP CERAMIC CAP.(1608) B K 0.1μF/ 50V	CHD1JK30B104
C866	CHIP CERAMIC CAP. F Z 2.2μF/ 10V	CHD1AZ30F225
C867	CHIP CERAMIC CAP. F Z 2.2μF/ 10V	CHD1AZ30F225
C868	CHIP CERAMIC CAP. B K 1μF/ 16V	CHD1CK30B105
C869	CHIP CERAMIC CAP.(1608) B K 0.022μF/ 50V	CHD1JK30B223
C1652	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C1653	ELECTROLYTIC CAP. 100μF/ 10V M	CE1AMASDL101
C1654	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C1655	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C1656	ELECTROLYTIC CAP. 100μF/ 10V M	CE1AMASDL101
C1657	ELECTROLYTIC CAP. 1000μF/ 6.3V M	CE0KMASDL102
C1658	ELECTROLYTIC CAP. 470μF/ 6.3V M	CE0KMASDL471
C1659	CERAMIC CAP. B K 1000pF/ 500V	CCD2JKS0B102
C1662	ELECTROLYTIC CAP. 220μF/ 6.3V M	CE0KMASDL221
C1664	ELECTROLYTIC CAP. 100μF/ 10V M	CE1AMASDL101
C1665	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C1666	ELECTROLYTIC CAP. 470μF/ 25V M	CE1EMZPDL471
C1667	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C1668⚠	ELECTROLYTIC CAP. 10μF/ 50V M	CE1JMASDL100
C1703	CHIP CERAMIC CAP. F Z 1μF/ 10V	CHD1AZ30F105
C1705	ELECTROLYTIC CAP. 47μF/ 16V M	CE1CMASDL470
C1803	PCB JUMPER D0.6-P5.0	JW5.0T
C1804	PCB JUMPER D0.6-P5.0	JW5.0T
C1805	CHIP CERAMIC CAP.(1608) B K 1000pF/ 50V	CHD1JK30B102
C1806	CHIP CERAMIC CAP.(1608) B K 1000pF/ 50V	CHD1JK30B102
CONNECTORS		
CN113	PH CONNECTOR (WHITE) TOP 4P B4B-PH-K-S(LF)	J3PHC04JG017
CN402	BACK LIGHT CONNECTOR 1717369-1	JB17D02AP001
CN403	BACK LIGHT CONNECTOR 1717369-1	JB17D02AP001
CN801	STRAIGHT CONNECTOR BASE 00 8283 0212 00 000	J383C02UG002
CN802	STRAIGHT CONNECTOR BASE 00 8283 0212 00 000	J383C02UG002
CN1651	PHD CONNECTOR B14B-PHDSS-B(LF)(SN)	J3F5D14JG003
CN1701	FMN CONNECTOR TOP 11P 11FMN-BTRK	JCFNG11JG002
CN101A	TWG CONNECTOR 09P TWG-P09P-A1	J3TWA09TG001
CN102A	TWG CONNECTOR 23P TWG-P23P-A1	J3TWA23TG001
CN103A	TWG CONNECTOR 23P TWG-P23P-A1	J3TWA23TG001
DIODES		
D31	SWITCHING DIODE 1SS400	QD1Z001SS400

Ref. No.	Description	Part No.
D402	SWITCHING DIODE 1SS400	QD1Z001SS400
D403⚠	ZENER DIODE MTZJT-779.1B	QDTB0MTZJ9R1
D404⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D405⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D406⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D407⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D408	ZENER DIODE MTZJT-7710B	QDTB00MTZJ10
D409	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D410	SWITCHING DIODE 1SS400	QD1Z001SS400
D411	SWITCHING DIODE 1SS400	QD1Z001SS400
D412⚠	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D413⚠	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D414	SWITCHING DIODE 1SS400	QD1Z001SS400
D415	SWITCHING DIODE 1SS400	QD1Z001SS400
D420⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D421⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D422	SWITCHING DIODE 1SS400	QD1Z001SS400
D423	SWITCHING DIODE 1SS400	QD1Z001SS400
D428	SWITCHING DIODE 1SS400	QD1Z001SS400
D430	SWITCHING DIODE 1SS400	QD1Z001SS400
D440	SWITCHING DIODE 1SS400	QD1Z001SS400
D441	SWITCHING DIODE 1SS400	QD1Z001SS400
D442	SWITCHING DIODE 1SS400	QD1Z001SS400
D443	SWITCHING DIODE 1SS400	QD1Z001SS400
D444	SWITCHING DIODE 1SS400	QD1Z001SS400
D445	SWITCHING DIODE 1SS400	QD1Z001SS400
D446	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D447	SWITCHING DIODE 1SS400	QD1Z001SS400
D448	SWITCHING DIODE 1SS400	QD1Z001SS400
D449	SWITCHING DIODE 1SS400	QD1Z001SS400
D450	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D451	SWITCHING DIODE 1SS400	QD1Z001SS400
D452	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D453	SWITCHING DIODE 1SS400	QD1Z001SS400
D454	SWITCHING DIODE 1SS400	QD1Z001SS400
D455	SWITCHING DIODE 1SS400	QD1Z001SS400
D466	SWITCHING DIODE 1SS400	QD1Z001SS400
D467	SWITCHING DIODE 1SS400	QD1Z001SS400
D468	SWITCHING DIODE 1SS400	QD1Z001SS400
D469	SWITCHING DIODE 1SS400	QD1Z001SS400
D480	ZENER DIODE MTZJT-779.1B	QDTB0MTZJ9R1
D501⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D502	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D504⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D505	IC SHUNT REGULATOR KIA431-AT	NSZLA0TJY001
D506	SWITCHING DIODE 1SS400	QD1Z001SS400
D507	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D510	SWITCHING DIODE 1SS400	QD1Z001SS400
D511	SWITCHING DIODE 1SS400	QD1Z001SS400
D512	SWITCHING DIODE 1SS400	QD1Z001SS400
D513	SWITCHING DIODE 1SS400	QD1Z001SS400
D514	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D515	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
D520	SCHOTTKY BARRIER DIODE 11EQS04	QD4Z011EQS04
D522	SWITCHING DIODE 1SS400	QD1Z001SS400
D523	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D527	SCHOTTKY BARRIER DIODE 11EQS04	QD4Z011EQS04
D605⚠	DIODE 1N5397(FORMING B322-	NDWZ001N5397
D606⚠	DIODE 1N5397(FORMING B322-	NDWZ001N5397
D607⚠	DIODE 1N5397(FORMING B322-	NDWZ001N5397
D608⚠	DIODE 1N5397(FORMING B322-	NDWZ001N5397
D609	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D611⚠	ZENER DIODE MTZJT-7722B	QDTB00MTZJ22

Ref. No.	Description	Part No.
D612	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D613	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D615	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D616⚠	ZENER DIODE MTZJT-7733B	QDTB00MTZJ33
D620	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D624⚠	ZENER DIODE MTZJT-7733B	QDTB00MTZJ33
D630⚠	SCHOTTKY BARRIER DIODE ERC84-009	QDLZERC84009
D631⚠	DIODE FR154	NDLZ000FR154
D633⚠	SCHOTTKY BARRIER DIODE ERC81-006	QDQZERC81006
D635⚠	SCHOTTKY BARRIER DIODE ERC84-009	QDLZERC84009
D636	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D637⚠	SCHOTTKY BARRIER DIODE ERC84-009	QDLZERC84009
D641⚠	ZENER DIODE MTZJT-7733C	QDTC00MTZJ33
D642	SWITCHING DIODE 1SS400	QD1Z001SS400
D643	SWITCHING DIODE 1SS400	QD1Z001SS400
D645⚠	DIODE FR154	NDLZ000FR154
D646⚠	DIODE 1ZC43	QDQZ0001ZC43
D647⚠	ZENER DIODE MTZJT-7739B	QDTB00MTZJ39
D648⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D649⚠	IC SHUNT REGULATOR KIA431-AT	NSZLA0TJY001
D650	SWITCHING DIODE 1SS400	QD1Z001SS400
D651	SWITCHING DIODE 1SS400	QD1Z001SS400
D652	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D653	SWITCHING DIODE 1SS400	QD1Z001SS400
D658	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D659	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D661	RECTIFIER DIODE FR202-B/P	NDQZ000FR202
D662⚠	SWITCHING DIODE 1SS400	QD1Z001SS400
D668	SWITCHING DIODE 1SS400	QD1Z001SS400
D671	RECTIFIER DIODE FR202-B/P	NDQZ000FR202
D672	SWITCHING DIODE 1SS400	QD1Z001SS400
D681	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D682	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D701	ZENER DIODE MTZJT-778.2B	QDTB0MTZJ8R2
D702	ZENER DIODE MTZJT-778.2B	QDTB0MTZJ8R2
D703	ZENER DIODE MTZJT-778.2B	QDTB0MTZJ8R2
D801	SWITCHING DIODE 1SS400	QD1Z001SS400
D802	SWITCHING DIODE 1SS400	QD1Z001SS400
D803	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D804	SWITCHING DIODE 1SS400	QD1Z001SS400
D805	SWITCHING DIODE 1SS400	QD1Z001SS400
D810	ZENER DIODE MTZJT-773.3B	QDTB0MTZJ3R3
D1651	ZENER DIODE MTZJT-775.6C	QDTC0MTZJ5R6
D1652	IC SHUNT REGULATOR KIA431-AT	NSZLA0TJY001
D1653	SWITCHING DIODE 1SS400	QD1Z001SS400
D1654	RECTIFIER DIODE ERA15-02	AERA1502****
D1655	SWITCHING DIODE 1SS400	QD1Z001SS400
D1656	ZENER DIODE MTZJT-773.9B	QDTB0MTZJ3R9
D1657	IC SHUNT REGULATOR KIA431-AT	NSZLA0TJY001
D1658	RECTIFIER DIODE FR202-B/P	NDQZ000FR202
D1659⚠	DIODE FR104-B	NDLZ000FR104
D1660	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1661	SCHOTTKY BARRIER DIODE 21DQ04	QDQZ0021DQ04
D1664	RECTIFIER DIODE FR202-B/P	NDQZ000FR202
D1665	SCHOTTKY BARRIER DIODE 11EQS04	QD4Z011EQS04
D1666	RECTIFIER DIODE FR202-B/P	NDQZ000FR202
	ICS	
IC31	IC VIF/SIF M61116FP TF0G	QSZBA0SHT034
IC531⚠	IC REGULATOR KA78R08C	NSZBA0SF3119
IC533	IC NJM78L05	QSBLA0ZJR034
IC601⚠	PHOTOCOUPLER PS2501-1W	QPEW0PS25011
IC671	VOLTAGE REGULATOR KIA7805API	NSBBA0SJY011

Ref. No.	Description	Part No.
IC672	VOLTAGE REGULATOR KIA7805API	NSBBA0SJY011
IC781	IC TC4053BF(EL.N)	QSZBA0TTS131
IC801	IC AN17812A	QSZBA0SMS017
IC851	IC MTS DECORDER AN5832SA-E1	QSZBA0TMS003
IC852	IC SWITCHING TC4052BF(EL)	QSZBA0TTS096
IC1652	VOLTAGE REGULATOR PQ070XF01SZH	QSZBA0SSH054
COILS		
L11	INDUCTOR 22μH-K-5FT	LLARKBSTU220
L12	PCB JUMPER D0.6-P5.0	JW5.0T
L13	INDUCTOR 0.47μH-J-26T	LLAXJATTUR47
L21	INDUCTOR 100μH-K-5FT	LLARKBSTU101
L22	INDUCTOR 150μH-J-26T	LLAXJATTU151
L31	INDUCTOR 22μH-K-5FT	LLARKBSTU220
L32	INDUCTOR 18μH-J-26T	LLAXJATTU180
L401	CHOKE COIL ELC10D330E	LLC330KMS003
L403	CHOKE COIL ELC10D330E	LLC330KMS003
L601⚠	LINE FILTER 5.0MH 6Y075	LLBG00ZKT004
L701	INDUCTOR 22μH-K-5FT	LLARKBSTU220
L781	PCB JUMPER D0.6-P5.0	JW5.0T
L851	PCB JUMPER D0.6-P5.0	JW5.0T
L1701	PCB JUMPER D0.6-P5.0	JW5.0T
TRANSISTORS		
Q32	TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q401⚠	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q403	RES. BUILT-IN TRANSISTOR BA1F4M-T	QQSZ00BA1F4M
Q404	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q405	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q406	TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q407⚠	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q408	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q409	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q410	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q411⚠	MOS FET 2SK4033	QF1Z2SK4033Q
Q412⚠	MOS FET 2SK4033	QF1Z2SK4033Q
Q415⚠	MOS FET 2SK4033	QF1Z2SK4033Q
Q416⚠	MOS FET 2SK4033	QF1Z2SK4033Q
Q421	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q422	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q423	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q424	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q427	TRANSISTOR 2SA1887	QQWZ02SA1887
Q428	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q501	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q502	TRANSISTOR 2SA1576A T106R	QQ1R2SA1576A
Q503	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q505	TRANSISTOR 2SC2120-Y(TE2 F T)	QQSY2SC2120F
Q509	TRANSISTOR 2SA1576A T106R	QQ1R2SA1576A
Q510	TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q511	RES. BUILT-IN TRANSISTOR BA1F4M-T	QQSZ00BA1F4M
Q512	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q513	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q531	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q601⚠	FET 2SK3869(Q)	QFWZ2SK3869Q
Q603⚠	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q633	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081
Q701	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081
Q702	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081
Q703	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081
Q704	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081
Q705	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081
Q706	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q707	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081

Ref. No.	Description	Part No.
Q708	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081
Q802	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q803	TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q804	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q1651	TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q1652	RES. BUILT-IN TRANSISTOR BA1F4M-T	QQSZ00BA1F4M
Q1653	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q1654	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q1655	RES. BUILT-IN TRANSISTOR BA1F4M-T	QQSZ00BA1F4M
Q1656	TRANSISTOR 2SD400(F)	QQUF002SD400
Q1657	TRANSISTOR 2SC2785(F)	QQSF02SC2785
Q1701	TRANSISTOR 2SC4081 T106 Q	QQ1Q02SC4081
RESISTORS		
R11	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R12	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R15	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R21	CHIP RES.(1608) 1/10W J 270k Ω	RRXAJR5Z0274
R23	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R24	CHIP RES.(1608) 1/10W J 820k Ω	RRXAJR5Z0824
R34	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R36	CARBON RES. 1/4W J 12k Ω	RCX4JATZ0123
R38	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R40	CHIP RES.(1608) 1/10W J 15k Ω	RRXAJR5Z0153
R42	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R46	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R48	PCB JUMPER D0.6-P5.0	JW5.0T
R49	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R50	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R52	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R402	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R403	CHIP RES.(1608) 1/10W J 15k Ω	RRXAJR5Z0153
R404	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R405	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R406	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R407	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R408	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R409	CHIP RES.(1608) 1/10W J 15k Ω	RRXAJR5Z0153
R410	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R411⚠	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R412	CHIP RES.(1608) 1/10W J 47 Ω	RRXAJR5Z0470
R413	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R414	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R415	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R416	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R417	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R418	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R419	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R420	CHIP RES.(1608) 1/10W J 33 Ω	RRXAJR5Z0330
R421	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R422	CHIP RES.(1608) 1/10W J 560 Ω	RRXAJR5Z0561
R423	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R424	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R425	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R426	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R427	CHIP RES.(1608) 1/10W J 47 Ω	RRXAJR5Z0470
R428	CHIP RES.(1608) 1/10W J 560 Ω	RRXAJR5Z0561
R429	CARBON RES. 1/4W J 56 Ω	RCX4JATZ0560
R440	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R441	CHIP RES.(1608) 1/10W J 560 Ω	RRXAJR5Z0561
R442	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R443	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R444	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103

Ref. No.	Description	Part No.
R445	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R446	CHIP RES.(1608) 1/10W J 47 Ω	RRXAJR5Z0470
R447	CHIP RES.(1608) 1/10W J 560 Ω	RRXAJR5Z0561
R448	CARBON RES. 1/4W J 56 Ω	RCX4JATZ0560
R450	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R451	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R452	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R455	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R463	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R464	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R465	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R466	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R471	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R475	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R476	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R480	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R481	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R482	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R486	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R487	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R488	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R489	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R490	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R491	METAL OXIDE FILM RES. 2W J 560 Ω	RN02561ZU001
R492	METAL OXIDE FILM RES. 1W J 1k Ω	RN01102ZU001
R495	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R496	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R497	METAL OXIDE FILM RES. 2W J 560 Ω	RN02561ZU001
R501	CHIP RES.(1608) 1/10W F 10k Ω	RRXAFR5H1002
R502	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R503	CHIP RES.(100PPM) 1/10W F 3k Ω	RRXAFR5H3001
R504	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R505	CHIP RES.(1608) 1/10W J 2.7k Ω	RRXAJR5Z0272
R506	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R508	METAL OXIDE FILM RES. 1W J 4.7k Ω	RN01472ZU001
R509	PCB JUMPER D0.6-P5.0	JW5.0T
R510	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R512	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R514	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R515	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R516	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R517	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R518	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R519	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R520	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R521	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R522	CHIP RES.(1608) 1/10W J 120k Ω	RRXAJR5Z0124
R527	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R528	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R529	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R531	CARBON RES. 1/4W J 56k Ω	RCX4JATZ0563
R532	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R533	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R535	CHIP RES.(1608) 1/10W J 56k Ω	RRXAJR5Z0563
R536	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R537	CHIP RES.(1608) 1/10W J 56k Ω	RRXAJR5Z0563
R538	CARBON RES. 1/4W J 1 Ω	RCX4JATZ01R0
R539	CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R540	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R552	METAL OXIDE FILM RES. 1W J 1 Ω	RN011R0ZU001
R601⚠	CEMENT RES. 3W K 1.2 Ω	RW031R2PG007
R603	CARBON RES. 1/4W J 390k Ω	RCX4JATZ0394
R604	CARBON RES. 1/4W J 390k Ω	RCX4JATZ0394

Ref. No.	Description	Part No.
R605	CARBON RES. 1/4W J 390k Ω	RCX4JATZ0394
R606	PCB JUMPER D0.6-P5.0	JW5.0T
R607	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R608	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R609	CARBON RES. 1/4W J 390k Ω	RCX4JATZ0394
R610	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R613⚠	METAL OXIDE FILM RES. 2W J 0.47 Ω	RN02R47ZU001
R620	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R621	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R622	PCB JUMPER D0.6-P5.0	JW5.0T
R623	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R632	METAL OXIDE FILM RES. 2W J 560 Ω	RN02561ZU001
R635⚠	CHIP RES.(1608) 1/10W J 27k Ω	RRXAJR5Z0273
R636	PCB JUMPER D0.6-P5.0	JW5.0T
R637⚠	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R642⚠	CHIP RES.(1608) 1/10W J 27k Ω	RRXAJR5Z0273
R643⚠	CHIP RES.(1608) 1/10W J 270k Ω	RRXAJR5Z0274
R645	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R646	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R647	CHIP RES.(1608) 1/10W F 1.8k Ω	RRXAFR5H1801
R648⚠	CHIP RES.(1608) 1/10W F 2k Ω	RRXAFR5H2001
R650⚠	CHIP RES.(1608) 1/10W F 1.8k Ω	RRXAFR5H1801
R652⚠	CHIP RES. 1/10W F 1.2k Ω	RRXAFR5H1201
R653⚠	CHIP RES. 1/10W F 1.2k Ω	RRXAFR5H1201
R654⚠	CHIP RES. 1/10W F 1.2k Ω	RRXAFR5H1201
R655	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R656	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R657	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R658	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R659	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R661⚠	CHIP RES.(1608) 1/10W F 1.8k Ω	RRXAFR5H1801
R664	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R665⚠	CHIP RES. 1/10W F 1.1k Ω	RRXAFR5H1101
R666⚠	CHIP RES.(1608) 1/10W F 2k Ω	RRXAFR5H2001
R667	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R668	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R670	CARBON RES. 1/4W J 47 Ω	RCX4JATZ0470
R672	PCB JUMPER D0.6-P5.0	JW5.0T
R701	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R702	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R703	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R704	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R705	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R706	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R707	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R708	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R709	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R710	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R711	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R712	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R713	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R714	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R715	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R716	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R717	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R718	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R719	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R720	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R721	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R722	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R725	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R732	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R733	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333

Ref. No.	Description	Part No.
R734	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R735	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R736	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R738	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R739	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R740	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R741	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R742	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R743	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R744	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R747	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R748	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R749	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R752	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R755	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R756	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R757	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R758	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R759	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R782	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R784	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R785	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R786	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R787	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R788	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R789	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R790	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R791	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R792	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R793	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R794	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R798	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R799	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R801	CARBON RES. 1/2W J 180 Ω	RCX2JZQZ0181
R802	CARBON RES. 1/2W J 180 Ω	RCX2JZQZ0181
R803	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R804	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R805⚠	METAL RESISTER. 2W J 2.7 Ω	RN022R7ZU001
R806	CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R807⚠	METAL RESISTER. 2W J 2.7 Ω	RN022R7ZU001
R808	CHIP RES.(1608) 1/10W J 56k Ω	RRXAJR5Z0563
R809	CHIP RES.(1608) 1/10W J 180k Ω	RRXAJR5Z0184
R810	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R811	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R813	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R814	CHIP RES.(1608) 1/10W J 2.7k Ω	RRXAJR5Z0272
R816	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R817	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R822	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R823	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R824	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R825	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R826	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R827	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R829	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R830	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R833	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R834	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R835	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R836	CHIP RES.(1608) 1/10W J 330 Ω	RRXAJR5Z0331
R837	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R838	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R839	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123

Ref. No.	Description	Part No.
R842	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R843	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R844	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R851	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R852	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R853	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R855	CHIP RES.(1608) 1/10W J 180k Ω	RRXAJR5Z0184
R859	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R860	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R861	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R862	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R863	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1631	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1651	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1653	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R1654	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
R1655	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R1656	CHIP RES.(1608) 1/10W J 22 Ω	RRXAJR5Z0220
R1657	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R1659	CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R1662	CARBON RES. 1/4W J 1.5 Ω	RCX4JATZ01R5
R1663	CARBON RES. 1/4W J 1.5 Ω	RCX4JATZ01R5
R1664	CHIP RES.(1608) 1/10W F 18k Ω	RRXAFR5H1802
R1665	CHIP RES.(1608) 1/10W F 56k Ω	RRXAFR5H5602
R1666	PCB JUMPER D0.6-P5.0	JW5.0T
R1667	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1668	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R1670	CHIP RES.(1608) 1/10W F 8.2k Ω	RRXAFR5H0822
R1671	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1672	CHIP RES.(1608) 1/10W F 220 Ω	RRXAFR5H2200
R1673	CHIP RES.(1608) 1/10W F 4.7k Ω	RRXAFR5H0472
R1674	CHIP RES. 1/10W F 5.6k Ω	RRXAFR5H0562
R1675	CHIP RES.(1608) 1/10W F 15k Ω	RRXAFR5H1502
R1677	CARBON RES. 1/4W J 1 Ω	RCX4JATZ01R0
R1679	CARBON RES. 1/4W J 1 Ω	RCX4JATZ01R0
R1680	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R1681	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1682	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R1683	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1701	CHIP RES.(1608) 1/10W J 160 Ω	RRXAJR5Z0161
R1704	CARBON RES. 1/4W J 160 Ω	RCX4JATZ0161
R1705	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R1706	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1707	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1708	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1709	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1802	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R1803	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R1805	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R1806	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R1807	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R1808	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
MISCELLANEOUS		
AC601⚠	AC CORD PB8K9F4110AB057	WAC0172LW020
B7	SHIELD BOX TOP L3201UB	1EM320159
B22	POW HEAT SINK PKG ASSEMBLY L3201UB	1EM420650
BC1651	PCB JUMPER D0.6-P5.0	JW5.0T
BC1652	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC1653	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC1654	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC1655	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC602	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021

Ref. No.	Description	Part No.
BC630	PCB JUMPER D0.6-P5.0	JW5.0T
BC631	PCB JUMPER D0.6-P5.0	JW5.0T
BC632	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC634	PCB JUMPER D0.6-P5.0	JW5.0T
BC636	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC637	PCB JUMPER D0.6-P5.0	JW5.0T
CF31	CERAMIC FILTER SFSRA4M50CF00-B0	FBB455PMR004
F601⚠	FUSE 4.00A/125V	PAGU20CAG402
FH601	FUSE HOLDER MSF-015	XH01Z00LY001
FH602	FUSE HOLDER MSF-015	XH01Z00LY001
GP641⚠	GAP. FNR-G3.10D	FAZ000LD6005
JK701	Y/C JACK 1P(SW) MDC-070V1-A	JYEL040LY002
JK703	RCA JACK(YELLOW) MTJ-032-06B-20	JXRL010LY050
JK704	RCA JACK(WHITE) MTJ-032-06B-22	JXRL010LY052
JK705	RCA JACK(RED) MTJ-032-06A-21	JYRL010LY014
JK706	RCA JACK(GREEN) MTJ-032-06B-25	JXRL010LY054
JK707	RCA JACK(BLUE) MTJ-032-06B-28	JXRL010LY057
JK708	RCA JACK(RED) MTJ-032-06B-21	JXRL010LY051
JK709	RCA JACK(WHITE) MTJ-032-06B-22	JXRL010LY052
JK710	RCA JACK(RED) MTJ-032-06A-21	JYRL010LY014
JK801	MINI JACK MSJ-2000	JYSL010LY003
JK1701	RCA JACK(ORANGE) MTJ-032-08B-40 FE	JXRL010LY128
JS21	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
JS524	PCB JUMPER D0.6-P5.0	JW5.0T
JS530	PCB JUMPER D0.6-P15.0	JW15.0T
JS531	PCB JUMPER D0.6-P5.0	JW5.0T
JS821	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
JS823	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
JS1654	PCB JUMPER D0.6-P16.5	JW16.5T
L4	SCREW B-TIGHT D3X8 BIND HEAD+	GBMB3080
SA601⚠	SURGE ABSORBER 470V+-10PER	NVQZ10D471KB
SF11	SAW FILTER SAFHM45M7VAJZ01B03	FBB456PMR012
T402⚠	INVERTER TRANS ETJV25ZB13AC	LTZ00EPMS006
T403⚠	INVERTER TRANS ETJV25ZB13AC	LTZ00EPMS006
T601⚠	POWER TRANSFOMER 15V 5741	LTT00CPKT191
TP402	PCB JUMPER D0.6-P10.0	JW10.0T
TP403	PCB JUMPER D0.6-P5.0	JW5.0T
TP1801	PCB JUMPER D0.6-P7.5	JW7.5T
TP1802	PCB JUMPER D0.6-P7.5	JW7.5T
TP1803	PCB JUMPER D0.6-P7.5	JW7.5T
TP1804	PCB JUMPER D0.6-P5.0	JW5.0T
TP1805	PCB JUMPER D0.6-P7.5	JW7.5T
TP1806	PCB JUMPER D0.6-P7.5	JW7.5T
TU1	TUNER UNIT TEFH9-002A	UTUNNTUAL045

FUNCTION CBA

Ref. No.	Description	Part No.
	FUNCTION CBA Consists of the following:	----------
	CAPACITORS	
C101	ELECTROLYTIC CAP. 47μF/ 10V M	CE1AMASDL470
C103	CERAMIC CAP.(AX) B 0.01μF/ 50V	CCK1JKT0B103
C105	CERAMIC CAP.(AX) F 10000pF/ 50V	CCK1JZT0F103
	RESISTORS	
R101	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R102	CARBON RES. 1/4W J 47 Ω	RCX4JATZ0470
R103	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R104	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R105	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R106	CHIP RES.(1608) 1/10W J 2.7k Ω	RRXAJR5Z0272
R107	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R108	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R109	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R110	CARBON RES. 1/4W J 47 Ω	RCX4JATZ0470
R111	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R112	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R113	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R114	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R115	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R118	CHIP RES.(1608) 1/10W J 68 Ω	RRXAJR5Z0680
R119	CHIP RES.(1608) 1/10W J 68 Ω	RRXAJR5Z0680
SW101	TACT SWITCH SKQSAB	SST0101AL038
SW102	TACT SWITCH SKQSAB	SST0101AL038
SW103	TACT SWITCH SKQSAB	SST0101AL038
SW104	TACT SWITCH SKQSAB	SST0101AL038
SW105	TACT SWITCH SKQSAB	SST0101AL038
SW107	TACT SWITCH SKQSAB	SST0101AL038
SW111	TACT SWITCH SKQSAB	SST0101AL038
SW114	TACT SWITCH SKQSAB	SST0101AL038
SW115	TACT SWITCH SKQSAB	SST0101AL038
SW116	TACT SWITCH SKQSAB	SST0101AL038
CLN104	8P WIRE ASSEMBLY WX1L3100-003	WX1L3100-003
JS121	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
JS122	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
JS123	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
JS124	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
RCV101	PHOTO LINK MODULE KSM-712TH2E	USESJRSKK044

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